CONSTRUCTION NEWS

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IMPORTANT WORK NOTED IN THIS ISSUE.

Railways.
Chicago, Milwaukee & Puget Sound.
Colorado Eastern.
Mexico.

Electric Railways.
Erie, Pa.
Chicago, Ill.
Kansas City, Mo.

Light and Power Plants.
Light and Water System, Opelika, Ala.
Mantle lamps, Boston, Mass.
Power House, Toledo, Ohio.
Power plant, Chelan, Wash.

Bridges.
Bridge, Bayside, N. Y.
Bridge, Yardley, Pa.
Bridges, Kansas City, Mo.

Buildings.
Terminals, Louisville, Ky.
McCormick Bldg., Chicago, Ill.
Office building, Seattle, Wash.
C. P. R. station, Montreal, Que.

Water Supply—Irrigation.
Water-works, Kansas City, Mo.
Irrigation project, Medford, Ore.
Water system extensions, Los Angeles, Cal.

Sewers.
Sewer system, etc., Woodlawn, Pa.
Sewers, Kansas City, Mo.
Sewer system, Kenniwick, Wash.

Streets and Roads.
Street work, Philadelphia, Pa.
Paving, Birmingham, Ala.
State roads, Albany, N. Y.

Manufacturing Plants.
Coffee plant, Toledo, Ohio.
Harvester plant, Milwaukee, Wis.
Packing plant, Oklahoma City, Okla.

Miscellaneous.
Barge canal, Albany, N. Y.
Pier, Oceanpark, Cal.
Dry dock, Hawaii.

RAILWAYS.

*(*Denotes that this work is advertised in Engineering News.)*

ATHENS & TELLICO.—We are officially advised that the contract for constructing 1½ miles of terminal spur at Athens, Tenn., has been let to JOHN L. O'CONNOR, of Knoxville, Tenn. As noted on July 7, "the Athens & Tellico Ry. was recently purchased by the Louisville & Nashville R. R. Co., and it is maintained as a subsidiary company to the L. & N. corporation. J. E. Willoughby, care of L. & N. R. R. Co., Louisville, Ky., is Ch. Engr."

BUTTE & PLUMAS.—E. S. Dunbar, Ch. Engr., Oroville, Cal., advises us that two miles of grading has been completed. The grading begins at a point about half a mile east of Oroville. The road will be narrow-gage and the first section will be 30 miles long, from Oroville to Stanwood. From the latter place it will be extended as the cutting of timber progresses. The new railway will open up productive country, but the idea of the builders is to make it a logging road. All surveys have been made and right-of-way obtained. The company is doing its own work. O. C. Haslett, Alameda, Cal., is Pres. Noted on July 7.

CHICAGO, BURLINGTON & QUINCY.—A cut-off is to be built which will result in saving more than 100 miles on the company's St. Louis-Puget Sound line. It is proposed to build an extension from Scribner, in Carbon County, Mont., to the Northern Pacific at Fromberg, Carbon County. The extension will be 30 miles long. F. T. Darrow, Lincoln, Neb., is Engr., M. W.; T. E. Calvert, Chicago, is Ch. Engr.

CHICAGO, CINCINNATI & LOUISVILLE.—This railroad has been sold by Noble C. Butler, Special Master in Chancery of the Federal Court at Indianapolis, in Richmond, Ind. The purchasers were Carl Remington and Gilbert Gannon, of New York City, who represented the Chesapeake & Ohio Ry. Co., the price paid being $5,200,000, the minimum bid that could be accepted under the order of the Federal Court. There were no other bidders, and the purchasers deposited a certified check for $350,000 to make good the bid. The Chicago, Cincinnati & Louisville R. R. extends from Cincinnati to Chicago, 284 miles. Improvements are to be made, it is said. F. I. Cabell is Engr. M.-of-W., C. & O. Ry. Co., Richmond, Va.

CHICAGO, MILWAUKEE & PUGET SOUND.—It is the intention to cross the states of Montana, Idaho and Washington with another line of railway, to be used as the main line of the road, it is stated. The line that is being figured on would leave the present main line of the road near Martinsdale, in Magher County, Mont., would go through the Rocky Mountains by the Cadotte Pass route, north of Helena, down the Swan River to Kalispell, then west to Libby, through the Kootenai Pass and on to Spokane. The road has secured a right-of-way through portions of this route, including the Cadotte Pass and into the Flathead Valley. The proposed line would be much shorter than the present main line of the road. Noted on June 24, '09, and March 3, '10.

COLORADO & SOUTHERN.—The UTAH CONSTRUCTION CO., of Salt Lake City, Utah, which has the contract for building the joint tracks of the Denver & Rio Grande and the Colorado & Southern between Pueblo, Colo., and Walsenburg, will open offices at Pueblo and will start work as soon as possible. Work will be started on both ends of the line at the same time. Noted on July 14.

COLORADO EASTERN.—Plans have been completed for the construction of a road between Denver and Omaha. Surveys and plans for such a line were made more than two years ago, when contracts were signed and preparations were completed to begin work on the grade. As a result of the panic, plans were dropped. The Colorado Eastern is at present a narrow-gage road running out of Denver, 17 miles to the east and operating one train a day. It owns valuable terminal property in Denver alongside that of the Union Pacific, Burlington and Denver, Northwestern & Pacific, and besides has a franchise allowing it to run steam trains into the city. According to surveys, the line will run 250 miles directly east, passing twelve miles north of Lenora, Kan., where a Missouri Pacific line ends, and then bend north, passing through Hastings, Neb., where a Chicago & Northwestern spur ends, and into Omaha, a total distance of about 500 miles. It is estimated that the construction and equipment will cost about $20,000 a mile. The road will be named the Denver & Omaha Short Line. A director of the Colorado Eastern announces, according to the Chicago "Post," that no other road is back of the proposition. The necessary papers for increasing the capital stock of the Colorado Eastern R. R. from $1,000,000 to $20,000,000 have been filed in Colorado. B. J. Burke, New York, N. Y., is Vice-Pres. and Gen. Mgr.; W. M. Porter is Ch. Engr., Denver, Colo.

DENVER & OMAHA SHORT LINE.—See Colorado Eastern.

DENVER & RIO GRANDE.—See Colorado & Southern.

KANSAS CITY, MEXICO & ORIENT.—Instructions have been given for the resumption of track-laying on the completed portion of the grade that extends northeast from the Conchos River in Mexico, for 25 miles. It is stated that only about 300 miles of grade remain to be constructed between the end of the Mexico line and the southern terminus of the Texas division to fill the gap and form a through line between Kansas City, Mo., and a point beyond the Sierra Madre range in Mexico. A. E. Stilwell, Pres., has secured $5,000,000 gold for construction work, which means that there will be no further delay in closing the gap between the Conchos River in Mexico and San Angelo, Tex., and also, that the branch line from San Angelo to Del Rio, Tex., will be built as fast as the work can be done. Grading outfits have been spread out over more than 200 miles of the route of the road. ROACH & STANSELL, of Memphis, Tenn., have been awarded a contract for 50 miles of the road from Mertzon, Tex., west. The contract involves about 1,000,000 cu. yds. of work. Officially noted on June 23.

MEXICO.—A contract, amounting to about $1,000,000 for the reconstruction of 60 kilometers of track of the National Railways between Acambaro and Uruapam has been awarded to the contracting firm of BELL, SIMS & BLACKFORD, of Mexico City, according to the Mexico "Herald." The National Railways Co. has commenced the reconstruction of 160 kilometers of track from Acambaro south toward Patzcuaro, and the contract let calls for building two sections of 30 kilometers each, one from Acambaro to Andocutin and the other from Morelia to the vicinity of Coapa, all in the state of Michoacan. The remaining 100 kilometers will be reconstructed by the National Railways and the work will consist largely of regrading the roadbed to accommodate a standard gage track. The sections awarded by contract are really new lines through the roughest parts of the road. The heaviest work will be encountered just south of Acambaro. There will be no tunneling but the masonry will amount to 1,500,000 cu. meters. James M. Reid is Ch. Engr., Mexico City, Mexico.

OHIO.—On July 22 the city of Cleveland voted to issue $2,000,000 of bonds to eliminate grade crossings throughout the city. Robert Hoffman is City Engr.

PENSACOLA, MOBILE & NEW ORLEANS.—C. W. MERRITT, of Pensacola, Fla., has been awarded the contract for grading from Loxley, Ala., to Mobile Bay. The contractor expects to have all of the grading work done by the middle of December. It is stated that all work will be completed and trains running from Pensacola to Mobile Bay early in the coming year, and that later a bridge will be constructed across Mobile Bay. Henry McLaughlin is Pres. Noted on March 3.

PINE BLUFF & NORTHERN.—We are officially advised that this company has been granted a charter in Arkansas to build from Pine Bluff, Ark., north to Searcy, 80 miles. The work will be light, being mostly dirt work. The company expects to let contracts Sept. 1. Surveys have been made and right-of-way obtained. Walter J. Miller is Pres., Lamair, Mo.; F. C. Kyte, Carlisle, Ark., is Engr. Company is capitalized at $1,600,000. It is the intention of the company to build its road from Pine Bluff in a northeasterly direction through the Counties of Jefferson, Lonoke, Prairie and White, its northeastern terminus being Searcy, where it will connect with the Missouri & North Arkansas R. R., giving Pine Bluff the shortest and most direct route to Kansas City. It will also give Pine Bluff connection with the Rock Island. The road will cross the Altheimer branch of the Cotton Belt Route at Tucker, twelve miles north of Altheimer, the Iron Mountain two miles north of Garner and the Rock Island at McCreanor, six miles east of Lonoke. It will traverse rice lands and rich cotton lands in a part of Jefferson and Lonoke Counties and will go through the timber belt in the Bayou Meto bottoms. It is the intention of the company to absorb the Meto Valley Road, which was recently built and extends from McCreanor south a distance of ten miles south through the Lonoke rice district. When the road is completed from Pine Bluff to Searcy the company proposes to build a branch line from a point 15 miles north of McCreanor to Little Rock, a distance of 25 miles, giving Little Rock connection with the Mississippi & North Arkansis R. R. at Searcy. The company will build its own bridge across the Arkansas River, five miles north of Pine Bluff. Noted on June 16 and July 14.

STEPHENVILLE, NORTH & SOUTH TEXAS.—W. S. Watson, Secy.-Treas., Stephenville, Tex., advises us that the following proposed extensions were favorably voted upon at the meeting held on July 2 by the stockholders: Hamilton to Gatesville; Stephenville to Thurber, and a branch from a point near Hamilton to Comanche, Tex. The company now operates 43 miles.

VERA CRUZ, TABASCO & CAMPECHE.—The survey for the proposed railway which the Vera Cruz, Tabasco & Campeche Railway Construction Co. will construct from Santa Lucrecia, Mexico, on the National Tehuantepec Railroad to the city of Campeche, Mexico, is being made under the direction of David Coe, Engr. of Mexico City. Two preliminary routes are being run.

ELECTRIC RAILWAYS.

HERMON, ME.—Surveys are being made for an extension of the Hammond St. division of the Bangor Railway & Electric Co.'s trolley system from its present terminus at Fairmount to Northern Maine Junction, in the town of Hermon, a railroad junction where the Seaport line of the Bangor & Aroostook crosses the Maine Central tracks. The extension will cost about $50,000 to $60,000, and will be ready for operation next June. John R. Graham, Bangor, is Gen. Mgr.

AUBURN, N. Y.—The Common Council has granted a franchise to the Auburn & Syracuse Electric R. R. Co., Syracuse, to double track its line in East Genesee St., Auburn. The work of double tracking will be started immediately and that of building the cut-off between Skaneateles and Auburn some time early next year. C. D. Beebe, Syracuse, is Pres. and Gen. Mgr.

NORRISTOWN, PA.—The Norristown Transit Co. has been granted a franchise to build an electric railway on Swede St., Airy St. and Markley St. in Norristown. The franchise also gave permission to construct elevated tracks from Schuykill River at Swede St. to Penn St. This company was lately incorporated with $25,000 capital stock. The incorporators are Charles E. Ingersoll, President; Penllyn McAllister, St. Martin's; G. H. Frazer, Jenkintown; E. B. Smith, Cwynedd Valley; Gerland Holsman, Philadelphia, and H. S. Farquhar, Bryn Mawr.

PHILADELPHIA, PA.—The Philadelphia Rapid Transit Co. will soon ask for a franchise to extend its line from Chester Ave., Yeadon, Pa., to the 69th St. terminal, Philadelphia. The line is to connect with traction lines in Darby which would give a direct line from Chester to Philadelphia. Other trolley extensions planned by the Rapid Transit Co. are as follows: To Norristown, by way of Manayunk and Falls of Schuylkill; to Bristol by way of Frankford, Bridesburg and Holmesburg; the West Chester service. Freight stations will be built at the end of the Haddington, Overbrook and Fox Chase lines. Stations will be built also at Pelham and Chestnut Hill. Walter Ellis, 2250 North Eighth St., is Gen. Supt. Noted on May 5.

On July 28 the Councils passed the Chester & Philadelphia Railway bill for the construction and operation of a surface line between Bow Creek and 92d St., in the 40th Ward, to connect with the lines of that company in Delaware County and those of the Philadelphia Rapid Transit Co.

UNIONTOWN, PA.—BERNARD O'CONNOR, of Connellsville, Pa., has been awarded the contract for grading the new line of the West Penn Rys. Co., from Leisenring No. 3 to Uniontown. Mr. O'Connor was the lowest bidder and was awarded the contract by J. L. Fritsch, Ch. Engr., Connellsville. Under the terms of the contract Mr. O'Connor is required to start work at once. He will begin at the terminal of the Leisenring No. 3 line. The grade on the extension is fairly good and the progress of grading is expected to be rapid. W. E. Moore, Connellsville, is Gen. Mgr.

ERIE, PA.—The Northwestern Traction Co. has asked for a franchise to build a trolley line in the city, making an entrance at the eastern line of the city on Twelfth St. and running as far west on this street as French St. where it will branch out both north and south, and then west again covering the northwestern portion as well as the southwestern sections of the city, giving a direct service to the site of the General Electric Co.'s proposed plant. Following is a schedule of the proposed work: Double track East Twelfth St., eastern city limits to French St., 12 city blocks; double track, French St., Twelfth to Third St., nine city blocks; single track Third St., French to Raspberry St., twelve city blocks; double track Raspberry St., Third to Fifth St., two city blocks; double track Fifth St., Cranberry to Cascade and single track Fifth St., Cascade to Sassafras St., double track Sassafras to French, 13 city blocks; double track, beginning at Twelfth St. on French, to 17th St., five city blocks; double track, 17th St., French to Peach St., two city blocks; single track, 17th St., Peach to Liberty, seven city blocks double track, Liberty St., 17th to Brown Ave., four city blocks; double track Brown's Ave., Liberty to Cranberry, four city blocks; single track, 17th St., French eastwardly to Parade, three city blocks; double track Parade St., 17th to 28th Sts., 11 city blocks; switch on Third St., not over 500 ft. long; switch on Fifth St., not over 500 ft. long; switch on West 17th St., not over 500 ft. long; switch on East 17th St., not over 500 ft. long. John S. [illegible]illing is Atty. for the company. The officers, directors and incorporators of the company are as follows: James Burke, Pres.; Charles S. Clarke, Secy.; F. M. Wallace, Treas.; Directors, M. H. Taylor, C. H. Strong, F. D. Schultz and Chas. E. Shenk; incorporators, M. H. Taylor, Charles S. Clarke, F. M. Wallace, F. D. Schultz, S. C. Walker, Frank Connell, Alexander Jarecki, E. G. Germer, Robert Spittal, R. W. Potter, Edward Mehl, John T. Brew, C. H. Strong, George R. Metcalf, James Burke and Charles E. Shenk.

COLUMBUS, OHIO.—The Columbus, Mount Vernon & Mansfield Traction Co. was incorporated recently with an authorized capital of $10,000, which will be increased to $2,000,000 later, for the purpose of acquiring the property of the Columbus, New Albany & Johnstown Traction Co. and building an extension to Mount Vernon and Mansfield. The incorporators of the company are: J. W. Lehman, The Ruggery, Columbus; J. M. Adams, David Lehman, Thomas W. Varley and George W. Rhoades. The incorporation papers provide that the line is to extend from the corner of Atcheson and Taylor Aves., in Columbus, through Franklin, Licking and Knox Counties to Mount Vernon and then through Knox and Richland Counties to Mansfield. The negotiations for taking over the Columbus, New Albany & Johnstown Traction Co. have been about completed and preliminary surveys for the extension of the line have been made.

NEW ALBANY, IND.—The Louisville & Southern Indiana Traction Co., of New Albany, has been granted a franchise by the City Council to extend its tracks to the proposed fair grounds near New Albany. It is probable that a line will be built from New Albany to French Lick Springs. M. J. Insull, New Albany, is Gen. Mgr.

CHICAGO, ILL.—The Chicago City Ry. Co. has been granted a franchise by the Council to build the Riverdale extension from Gardner's Park to the city limits at 138th St. A franchise has also been granted this company for an extension of the Stony Island Ave. line north to 56th St. H. B. Fleming, First National Bank Bldg., is Ch. Engr.

An interurban line, connecting Chicago with the towns and villages in Illinois, has been organized, with Thomas E. Mitten, Pres. of the Chicago City Railway Co., as Pres. It is known as the Eastern Illinois Railway Co. and proposes to construct about 15 miles of road, connecting Harvey, West Hammond, Dolton, Riverdale, Thornton and other points in the Township of Thornton with Chicago by means of a trolley line passing over the steam roads by means of steel viaducts. The company has just given to the First Trust & Savings Bank, Trustee, a mortgage to secure a bond issue of $5,000,000, $400,000 to be used for the purpose of acquiring property and equipment of the road and $4,600,000 to be reserved for construction and other uses. A. L. Drum & Co., 125 Munroe St., Chicago, are Engrs.-in-Charge.

DECATUR, ILL.—The Decatur Southern Traction Ry. Co. has completed preliminary arrangements and contracts will be let about Aug. 1 to build its proposed 35-mile railway from Decatur, Ill., south through Macon and Assumption to Pana. There will be a bridge over the Sangamon River. R. McCalman, 318 Citizens' T. & T. Bldg., Decatur, is Ch.

Engr.; Joseph Nordenschild, 29 Broadway, New York, is Pres.; Peter Chase, Decatur, is Vice-Pres. and Gen. Mgr. Noted on Feb. 17.

MADISON, WIS.—The Western Indiana Construction Co., of Indianapolis, Ind., which will build the proposed interurban electric railway from this city to Stevens Point, has filed articles of incorporation with the Secretay of State, at Madison. The capital stock amounts to $100,000, with $25,000 interest in Wisconsin. Allen T. Russell is Pres., Indianapolis; J. E. Jones, Portage, Wis., is Gen. Mgr.

KANSAS CITY, MO.—The St. Louis-Kansas City Electric Ry. Co. has sold $15,000,000 of bonds, the proceeds to be used for constructing its line. As noted on April 28, the company "plans to build a double track electric railway between St. Louis and Kansas City, 250 miles, via Blue Springs, Oak Grove, Odessa, Higginsville, Marshall, Arrow Rock, New Franklin and Columbia, tapping the coal fields of Missouri. Power houses are to be built near the coal fields. The right-of-way will be 100 ft. wide. The company owns 10,000 acres of coal lands. Company will construct a power plant. Surveys are practically completed and work will probably be started by June. D. C. Nevin is Pres., Commerce Bldg., Kansas City; W. B. Cauthorn, Columbia, Mo., is Ch. Engr."

TEMPLE, TEX.—The bondholders, who purchased the property of the Belton & Temple Traction Co. at receiver's sale, have taken over the company's electric street railway system here. The new owners have plans to make improvements and to extend the line into several new residence parts of the city. The interurban line of the company runs between Temple and Belton. W. G. Haag was the Receiver for the company.

WHITE SALMON, WASH.—The contract has been let by the Mount Adams Ry. Co. to the NORTHWEST ENGINEERING & CONSTRUCTION CO., for surveying the company's proposed line, 40 miles long. On July 7 we noted that the line will connect White Salmon, Bingen, Bristol, Pine Flat, Snowden, Timber Valley, Glenwood and probably Trout Lake and Husum. Power-house will be located near White Salmon and will have a capacity of 10,000 HP.; repair shops will be in White Salmon. Company will furnish power for lighting and for manufacturing purposes. Capital stock authorized, $50,000; bonds authorized, $800,000. Rudolph Lauterback, White Salmon, is Pres.; Tunis Wyers, Vice-Pres.; Theodore F. Shepler, Secy. and Gen. Mgr., and Hubert L. Simpson, Treas, White Salmon.

HANFORD, CAL.—LIBBY & HEINS, of Santa Cruz, Cal., have been awarded the contract, it is stated, for building the proposed line of the Hanford & Summit Lake Ry. Co., from Hanford, Cal., westerly via Grangeville and Hardwick to Summit lake, 18 miles, and work is to be started at once. The maximum grades will be 0.3% and maximum curvature 3°. There will be about 1,500 ft. of pile trestle work. J. B. Rogers, Ch. Engr., Hanford. Charles King, Hardwick, J. O. Hickman and George C. Aydelott, of Hanford; Ralph W. Heins, of Santa Cruz, and Clifford McClellan, of San Francisco, are the directors of the company.

SAN DIMAS, CAL.—ROBERT SHERER & CO., Pacific Electric Bldg., Los Angeles, have the contract for and will begin at once the construction of a 6-mile extension, of the Pacific Electric Ry. Co.'s line, from Covina to San Dimas. George E. Pillsbury, Los Angeles, is Ch. Engr.

CALDWELL, IDAHO.—We are officially informed that the Caldwell-Roswell-Big Bend Interurban Co. intends to build a traction line between Caldwell, Roswell and Big Bend, 21 miles. Surveys have been made, but no right-of-way has been secured. The work will be mostly light grading. The officers are: H. W. Dorman, Caldwell, Pres. and Gen. Mgr.; J. H. Lovell, Vice-Pres.; H. S. Kneedler, Secy.; E. A. Clark, Treas.

ST. CATHARINES, ONT.—The City of St. Catharines has granted a franchise to the Buffalo, Niagara & Toronto Railway Co., a proposed electric line. The company will build from Niagara-on-the-Lake to St. Catharines and may later extend to Buffalo and Toronto.

BERLIN, ONT.—The Berlin & Waterloo Street Ry. Co., Berlin, Ont., will purchase, during the next six weeks, derail and interlocking apparatus. V. S. McIntyre, Berlin, is Gen. Supt. Noted on June 30.

LIGHT AND POWER PLANTS.

*(*Denotes that this work is advertised in Engineering News.)*

PITTSFIELD, N. H.—The Pittsfield Light & Power Co. has been incorporated to furnish electricity for light and power, and a contract has been made with the town to furnish light for five years. C. F. Gardner, of Raymond, N. H., will have charge of installing the plant, which will be steam power. F. W. Hutchins is Pres., Pittsfield.

BOSTON, MASS.—Contract for installing electrical equipment in the addition to the Girl's High School has been awarded to ALFRED J. HIXON.

The Edison Electric Illuminating Co. has awarded contract to the GENERAL ELECTRIC CO. for a new 6-stage, 720-r. p. m. electric turbo-generator to be installed in its station at the foot of L St. in South Boston, to be ready for use next May. Its regular maximum capacity of output will be 15,000 KW.

The Finance Commission on July 22 presented to the Mayor and City Council three plans for lighting the city with gas as recommended by the Superintendent of Streets. The Commission favors the first plan which provides that the city appropriate $310,000 to buy and install 12,000 inverted mantle lamps. The second plan contemplates an appropriation of $335,000 to buy and install upright lamps, and the third to accept the proposition of the Consolidated Gas Co. to furnish and care for lights on a 5-year contract at $20.51 per lamp per year.

TORRINGTON, CONN.—The Torrington Electric Light Co. has submitted a proposition to the Borough Board regarding the improvement of the present street lighting system. The company offers to replace the present 25-c.p. incandescent lamps with 80-c.p. tungsten lamps at $32 per lamp per year. There are about 354 electric street lamps, the cost of which is estimated at about $8,500 per year. The new system would increase the cost from $4,000 to $5,000. The lamps will be lighted every night until midnight, but after that hour the moonlight schedule will be followed.

DANIELSON, CONN.—The J. W. BISHOP CO., of Worcester, Mass., has been awarded contract for the construction of a power house for the Quinebaug Co. at Danielson, plans for which were drawn by Lockwood, Greene & Co., of Boston. The condensers on the same building were awarded to H. W. BULKELEY and B. F. STURTEVANT CO., has the contract for the induced drafts.

BOONVILLE, N. Y.—Bids will not be asked for the construction of the concrete dam to be built in connection with the municipal electric plant as the work will be done by the day. Estimated cost, $25,000. W. G. Stone, of Utica, N. Y., is Engr.

NORWOOD, N. Y.—Plans are being prepared by the Norwood Paper Co. for the construction of a 4,000-HP. hydroelectric plant, the work to include the construction of a large concrete dam and flume. B. Cleveland, of Watertown, N. Y., is Engr.

GAROGA, N. Y.—Contracts have been awarded by the Garoga Water Power & Transmission Co. for the construction of hydroelectric plants on Peck Lake and Garoga Lake, N. Y., including power-house, to the EMPIRE ENGINEERING CORPORATION, 60 Wall St., New York. The plans call for the development of 20,000 HP.

BUFFALO, N. Y.—Bids were opened on July 19 by the County Supervisors for constructing a power plant at the Erie County penitentiary, as follows: Charles H. Everitt, $69,918; John Lannen, $72,110; Dunfee Construction Co., $73,910; Brand & Geiger, $74,119; Lake Erie Engine Works, $75,900.

SILVER SPRINGS, N. Y.—The citizens have voted to issue $6,000 of bonds for an electric light plant.

BROOKLYN, N. Y.—The Edison Electric Co., 660 Pearl St., will construct a brick substation two stories high, 25x100 ft., at 864 Madison St. Estimated cost, $20,000.

NEW YORK, N. Y.—Bids were received as follows on July 30 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for condensers, piping, equipment, etc., at Navy Yard, New York: Evans, Almirall & Co., 281 Water St., New York, Item 1, $36,133; D'Olier Engineering Co., 121 South Eleventh St., Philadelphia, Pa., Item 1, $36,600; John W. Danforth Co., 72 Ellicott Sq., Buffalo, N. Y., Item 1, $36,889 and $37,144.

NEW YORK, N. Y.—Contract has been awarded by C. B. J. Snyder, Supt. School Bldgs., New York, for installing electric equipment in addition to and alterations in School 58, Borough of Queens, to the NEW YORK CONSTRUCTION CO., 1328 Broadway, New York, at $10,473. Bids were opened on July 25. List of bidders noted last week.

NEWARK, N. J.—Bids will be received by the Committee on Public Buildings of the Board of Chosen Freeholders, Louis E. Voorhees, Chn., at Newark, until Aug. 5 for the electric light and power plant at the county court-house, Newark. Runyon & Carey are Engrs., 122 Market St.

MERCERSBURG, PA.—Contract for constructing the power-house in connection with the Mercersburg Academy has been awarded to C. W. STRAYER, of Harrisburg, at $6,900.

ERIE, PA.—Contract for construction of the power-house and laundry building at Second and State Sts., for the Hamlet Hospital, including boilers, conduits and laundry equipment, has been awarded to the HENRY SCHENK CO., of Erie. Esenwein & Johnson, 781 Ellicott Sq., Buffalo, N. Y., are Archs.

BRADFORD, PA.—Bids will be received at the office of the Supervising Arch., Treasury Dept., Washington, D. C., until Aug. 29, for the construction complete, including plumbing, gas piping, heating apparatus, electric conduits and wiring, of the United States post-office in Bradford. James Knox Taylor is Superv. Arch.

PHILADELPHIA, PA.—Contract for installing power plant equipment at the navy yard, Philadelphia, has been awarded to the D'OLIER ENGINEERING CO., Philadelphia, at $15,421.

ALTOONA, PA.—The Pennsylvania Central Light & Power Co. is preparing plans for the construction of an electric light and power plant here.

PITTSBURG, PA.—Contracts have been awarded by the Morris & Bailey Steel Co. to the ALLEGHENY COUNTY LIGHT CO. for furnishing electricity for lamps and motors for its cold rolling mill at Wilson Station, 400 KW.

READING, PA.—The Consumers Gas Co. will erect a large holder to have a capacity of 1,500,000 cu. ft. of gas. Estimated cost, $250,000.

NEWCASTLE, PA.—The Police Committee on July 21 recommended to Councils the construction of a municipal electric light plant. The present contract with the Newcastle Electric Co. expires in December, 1912.

BALTIMORE, MD.—Bids will be asked soon for the proposed power house at Bay View Asylum, to be one story, brick and stone, and to contain dynamos of 4,000 HP. The plant will furnish electricity to the hospital and contagious ward Estimated cost, $20,000.

BALTIMORE, MD.—Bids are asked by the Board of Awards until 11 a. m., Aug. 17, for materials and erection of power house; furnishing and installing generators, switchboard and electric wire; for boilers, piping in power house and piping on the grounds; and for the water-supply system, including water storage tank, pumps, etc. Edward D. Preston is Inspector Bldgs.

The Superintendent of Lamps and Lighting has recommended to the Board of Awards that the contract for supplying current for the city's electric lamps be awarded to the Consolidated Gas, Electric Light & Power Co.

WASHINGTON, D. C.—Congress at its last session voted appropriations for construction, extensions and improvements of power plants, electrical equipment, etc., for public and other buildings for the year ending June 13, 1911, as follows: For the installation of electrical burglar devices in post-office, court-house at Chicago, Ill., and post-office and subtreasury building at Boston, Mass., $30,000; for purchase and installation of an underground electric transmission system at Proving Ground, Sandy Hook, N. J., $6,500; for rearrangement and addition to power plant, including the erection of new power-house, at Watertown Arsenal, Watertown, Mass., $55,700; for repairs of Interior Department and Pension buildings and of old Post Office Department building, Washington, D. C., including the preservation and repair of steam heating and electric lighting plants and elevators, $20,000; for installation of electric elevators in the pension office building and changes in building, $15,000; for construction and installation of electric light, power and telephone cables between the city of Galveston, Tex., and the immigrant station on "Pelican Spit," $5,000.

Bids will be received at the office of the Chief Signal Officer, War Dept., Washington, D. C., until Aug. 5, under proposal No. 471, for furnishing two transformers, one with a rating of 10 KW. and the other of 3 KW. A. S. Cowan is Disbursing Officer.

VALDOSTA, GA.—The Consolidated Light & Power Co. has applied to the State Railroad Commission for permission to issue $50,000 capital stock and $75,000 of bonds for the construction of an electric light and power plant here. The company also proposes to operate an electric light plant in conjunction with the generating plant.

ATLANTA, GA.—Bids are asked by R. V. LaDow, Supt. of Prisons, Washington, D. C., until 10 a. m., Aug. 17, for furnishing and delivering at the U. S. penitentiary at Atlanta, conduit, outlet boxes, etc., for electric light, telephone and dock outlets for the hospital building.

ST. PETERSBURG, FLA.—The St. Petersburg Investment Co. is planning to install two 250-HP. Berry boilers and a tungsten series street lighting system. H. Walter Fuller is Mgr.

OPELIKA, ALA.—Bids are asked by the Mayor and Council until noon, Aug. 31, for furnishing all material and constructing a complete electric lighting system and waterworks. Plans may be seen at the office of the City Clerk or J. B. McGarry Co., Engrs., 1311-15 Empire Bldg., Atlanta, Ga., and specifications may be obtained from either.

COLUMBUS, MISS.—The Alabama Gas Co. with a capital of $1,00,0000 has been organized to utilize the natural gas recently discovered in Fayette County, Ala., and has applied to this city for a franchise. The company was organized by Dr. G. B. Crowe, Pres. Providence Oil Co., which owns the Fayette oil fields, and pipe lines will be built to various towns and cities in West Alabama and East Mississippi. The plan contemplates the laying of a pipe line from Fayette, through Columbus to Artesia, Miss., and from this point gas will be distributed to Macon, Starkville, West Point and other east Mississippi towns.

CLEVELAND, OHIO.—The Cleveland Southwestern & Columbus Ry. Co. contemplates purchasing stokers for the 3,275-HP. power-house in Elyria and coal and ash-handling machinery. E. F. Schneider, of Cleveland, Ohio, is Gen. Mgr.

CINCINNATI, OHIO.—Bids will be received by the Board of Hospital Commissioners, City Hall, Cincinnati, until Aug. 9, for furnishing all material and installing lighting fixtures, inter-communicating telephone system, vacuum cleaning system, laundry machinery, etc., required for the completion of the present building for the contagious group of the New General Hospital, located at Eden and Bethseda Aves., Cincinnati. Samuel Hannaford & Sons, Sixth and Vine Sts., Cincinnati, are Archs.

CINCINNATI, OHIO.—Bids will be received until Aug. 9 by the Board Hospital Commissioners of Cincinnati, E. L. Kennedy, Clk., for furnishing material and installing lighting fixtures, disinfecting apparatus, vacuum cleaning system and laundry machinery. Samuel Hannaford & Sons are Archs., Sixth and Vine Sts.

TOLEDO, OHIO.—Macomber Bros., of Toledo, will construct a power-house at West Woodruff Ave., North Twelfth and Wakeman Sts., to be 230 × 210 ft., three stories high. The building will be constructed on the unit plan so that future additions can be made. The first unit will have 110,000 sq. ft. of floor space and with the power-house, will cost about $125,000.

CLEVELAND, OHIO.—Bids will be received by the Board of County Commissioners of Cuyahoga County at the offices of the Cuyahoga County Building Commission, Garfield Bldg., until 2 p. m., Aug. 24, for (A) electric current for lighting and power; (B) steam for heating for the new court-house building covering a period of six, eight and ten years from Nov. 1, in accordance with the specifications therefor adopted as prepared by H. W. Woodward, of the Cleveland Engineering Co., which specifications are now on file in the offices of the County Commissioners. Bidders are requested to make separate bids for the furnishing of current and steam for six years, one for eight years and one for ten years.

CRAWFORDSVILLE, IND.—The Crawfordsville Water & Gas Co. has purchased the old natural gas mains and other property of the Indiana Lighting Co. in this city and will begin preparations soon to furnish artificial gas. The company will ask the city for a new franchise.

HUNTINGBURG, IND.—The Huntingburg Electric Light Co. has been incorporated to build, equip and operate an electric light plant. Charles and August Miessner and F. J. Katterhenry are Directors.

ANDERSON, IND.—The [illegible] Gas, Light & Fuel Co. is preparing to ask for bids for the construction and equipment of a large artificial gas plant. C. W. [illegible]ver is Secy.

*STURGIS, MICH.—The OLSEN CONSTRUCTION CO. has been awarded contract by the city for Contract No. 1, a brick and concrete water-power station building and excavation for a tail race, and Contract No. 2, a concrete multiple arch spillway and an earth embankment. The approximate quantities of the principal items will be: Contract No. 1, for building 1,900 cu. yds. of excavation, 1,100 cu. yds. of concrete, 16 tons of steel reinforcing and 70,000 brick; for tail race, 2,000 to 4,000 cu. yrs. of excavation; Contract No. 2, for spillway, 4,500 cu. yds. of excavation, 1,900 cu. yds. of concrete, 23 tons of steel reinforcing; for embankment, 24,000 cu. yds. of fill. Bids were opened on July 6. List of bidders noted last week.

IRONWOOD, MICH.—The citizens on July 18 voted to grant Albert D. Johnston, Arthur E. Applevard and others a franchise to furnish electricity for light, power and other purposes.

DECATUR, ILL.—The city is preparing for the construction of an entire new municipal electric light plant. Bids are now being asked, bonds for $75,000 having been voted for the purpose. J. J. Miller is Ch. Elecn.

DEKALB, ILL.—Contract for the erection of the Northwestern power-house in the Fulton terminal yards, has been awarded to J. J. JOBST, of Peoria, who is now building the round-house. Work on the new structure, which will be located just north of the round-house, will be commenced at once. The building will be 100 × 110 ft., 20 ft. high, built of brick, which will rest on a concrete foundation. When completed it will be equipped with the latest improved machinery that will receive power from a battery of five 150-HP. boilers.

ANTIGO, WIS.—The Wisconsin Traction, Light & Power Co. will develop the Gardiner dam site on the Wolf River, 24 miles from this city and transmit the current to Appleton for the operation of the Fox River Valley interurban railway system. A total fall of 95 ft. has been secured.

CRANDON, WIS.—Bids are asked until Aug. 10 by the city for the construction of an electric lighting plant. Estimated cost, $10,000. August H. Meyer is City Engr.

MADISON, WIS.—Bids will be received until Aug. 12 by the Forest Products Laboratory, Madison, for furnishing and installing on Forest Service Foundations electrical equipment for driving 500-HP. ground wood pulp grinder in the Forest Service Ground Wood Laboratory.

POCAHONTAS, IOWA.—The city is contemplating the construction of an electric light plant, bids for which will be asked soon. Estimated cost, $12,000 to $14,000.

MANCHESTER, IOWA.—The directors of the Manchester Light, Heat & Power Co. have decided to enlarge the plant, and have purchased a new 150-HP. boiler which will be installed immediately. The company will also put in two new 15-KW. transformers.

ST. PAUL, MINN.—The St. Paul Gas Light Co. is installing a large new steel gas holder and tank at their plant, Sixth and John Sts. The contract has been awarded to the RITER-CONLEY MFG. CO. of Pittsburg, Pa. Estimated cost $130,000. Paul Doty is Gen. Mgr.

PELICAN RAPIDS, MINN.—Bids were opened on July 18 by H. N. Bruce, Village Recdr., for furnishing material, machinery, equipment, etc., for the changes and additions to the electric light plant. Contract has been awarded to the POWER ENGINEERING CO., of Minneapolis, at $4,521.

LEAVENWORTH, KAN.—Bids are asked by R. V. LaDow, Supt. of Prisons, Washington, D. C., until 10 a. m., Aug. 19, for conduit, outlet boxes, etc., for electric light, telephone and dock outlets for the hospital buildings.

STAFFORD, KAN.—We are officially advised that the city is considering the construction of electric light, water-works and sewerage systems. Estimated cost, $75,000. Gus Mibesell is City Clk.

WICHITA, KAN.—Contract for the construction of the new power-house of the Kansas Gas & Electric Co. has been awarded to the DEITER & WENZEL CONSTRUCTION CO., of Wichita, Kan. Estimated cost, about $787,000, as follows: Cost of the building, $112,000; equipment, $341,000; line construction in the city, $50,000. The remainder will be used for repairs and distribution of lamps, etc. Contracts have been placed for equipment.

GRAND FORKS, N. DAK.—The name of the Grand Forks Gas & Electric Co., the holdings of which were recently purchased by H. M. Byllesby & Co., 218 La Salle St., Chicago, Ill., has been changed to the Red River Power Co. Improvements will be made to the system this season to cost $100,000, including the installation of a 750-KW. engine-driven generator, the construction of from 20 to 25 miles of electric transmission line for the distribution of electricity in the residence districts and the construction of about four miles of new 4-in. gas mains.

MILES CITY, MONT.—See item under Water Supply—Irrigation.

FORT BAYARD, N. MEX.—J. B. DOWNEY of Silver City, N. Mex., has been awarded contract by the Federal Government for the installation of the electric light plant and wiring at the new officers' quarters and ward buildings at Fort Bayard. Estimated cost, $130,000.

NORTH YAKIMA, WASH.—The Pacific Power & Light Co. has applied to the Commissioners of Yakima County for a franchise to erect transmission lines over Grandview addition and Second Ave. addition to Sunnyside, and to construct a line north from Sunnyside to transmit electricity for irrigating purposes.

TACOMA, WASH.—Contract for the construction of the head work and tunnel in connection with the municipal electric plant on the Nisqually River, has been sublet by Wright, Sweeney & Cummings to GEORGE MILTON SAVAGE and W. E. NICHOLS, of Tacoma, at $655,255. Estimated cost of entire plant, $2,000,000.

CHELAN, WASH.—Brown & Co., of Chelan, Wash., are considering plans for the construction of a new 5,000-HP. hydroelectric power plant. George D. Brown is Pres. and Gen. Mgr.

WILSON CREEK, WASH.—The City Council has granted to C. J. Wellar a 50-year franchise to operate an electric light and power plans here.

MILAN, WASH.—See item under Water Supply—Irrigation.

ROSEBURG, ORE.—J. L. & S. A. Kendall, owners of the hydroelectric plant here, have awarded contract for a 20 × 36 "Reliance" type, heavy duty engine to the ALLIS-CHALMERS CO., of Milwaukee, Wis., which will be belted to the generator to operate the plant during the low-water period. The plant at present is equipped with a turbine connected to a 200-KW., 60-cycle, 3-phase, 6,600-volt alternator.

EMERYVILLE, CAL.—The Board of Trustees has been asked by the Great Western Power Co. for a franchise to erect transmission lines for the distribution of electricity for lamps and motors in Emeryville. Bids will be received by the Board of Trustees until Aug. 15. F. H. Farr is Town Clk.

OAKLAND, CAL.—Bids will be received by the Board of Public Works until Aug. 19, for furnishing electrical equipment for the new building for the Fire Alarm and Police Telegraph Department, now under construction at Oak and 13th Sts. Frank R. Thompson is Clk. Council.

RIVERSIDE, CAL.—H. E. Koebig, Sr., and associates are considering plans for extensive developments of water power and for impounding water for irrigation purposes in Strawberry Creek and the south fork of San Jacinto River. Applications for rights-of-way, building permits and other privileges in the national forest reserve have been granted by the United States Government. The work includes the erection of a large dam across Strawberry Creek at the lower end of the Domenigoul ranch. Notice of appropriation of water to be taken from the south fork of the San Jacinto River has also been filed, the water to be used for power purposes. The power plant will be located at a point in the south fork near the junction of Strawberry Creek.

SACRAMENTO, CAL.—The PACIFIC GAS & ELECTRIC CO. has been awarded contract for furnishing electricity for lighting East Sacramento, Folsom and Oak Park. The company will furnish 2,000-c. p. arc lamps in East Sacramento and Oak Park at $6.30 each per month, the same as paid in Sacramento; in Folsom, where 40-watt lamps are used instead of arc lamps, a flat rate of $75 a month or $900 a year will be charged.

BOISE, IDAHO.—The Snake River Irrigation Co. has awarded contracts for the construction of dam, power-house and retaining wall for the Castle Butte project, located on the Snake River about 38 miles south of here. Estimated cost, $500,000. E. C. Crocker is Vice-Pres.

QUEBEC, QUE.—The EASTERN CANADA STEEL & IRON WORKS has been awarded contract for the steel for the new building of the Quebec Ry., Light, Heat & Power Co. The building will be seven stories in height. The contract is for $90,000.

STRATFORD, ONT.—The ratepayers on July 29 voted in favor of the by-law authorizing the corporation to acquire the local lighting plant.

WINNIPEG, MAN.—The City Engr. has been directed to prepare plans and estimates for the construction of a municipal gas plant.

ESTEVAN, SASK.—Bids are asked by L. A. Duncan, Secy.Treas. until Aug. 24 for the following work in connection with the electric light and sewerage plants: Contract (A) pipe laying for storm sewers; (B) power-house; (H) two return tubular boilers; (J) high-speed steam engine; (K) electric lighting system; (S) sewer pipes.

CAMROSE, ALTA.—The by-law authorizing the raising of $30,000 for a municipal lighting plant was carried by the ratepayers on July 20.

NEW WESTMINSTER, B. C.—Plans are being considered by the Canada Power Co., of Stave Falls, for erecting a transmission line from Stave Falls to Pitt River for supplying electricity to the towns of Haney, Hammond and other villages.

GUANACEVI (Durango), MEX.—J. E. Knotts, of Guanacevi, Mex., is contemplating the installation of a 50 or 75-KW., 3-phase, 2,200-volt, 60-cycle generator connected to engine in his mill for furnishing electricity for lamps and motors in the city. About three miles of transmission line will be erected, and a street-lighting system installed.

TETELA (Hidalgo), MEX.—Dr. M. D. Shaw of Puebla has made application to the State Government for a concession to install a large hydro-electric plant on the Rio de Tonalapa near Tetela. He will organize a company to take hold of the project.

BALSAS (Guerrero), MEX.—The Balsas Power & Irrigation Co. which has been organized with a capital stock of $200,000 will install a hydro-electric plant on the Balsas River in this state. The project is being promoted by A. B. Adams & Co. of New York. The concession for the enterprise was obtained from the Mexican Government by Francisco Alfero of Mexico City, attorney for the company. It is stated that the plant will be sufficiently large to generate power for mines and other industries covering considerable territory and that the capital stock of $200,000 is only nominal. The company will also irrigate a large tract of land in connection with its electric power enterprise.

BRIDGES.

(*Denotes that this work is advertised in Engineering News.)

WESTFIELD, MASS.—Plans for the new 2-track bridge for the New York, New Haven & Hartford R. R. Co., to be constructed over the Westfield River, have been prepared. This bridge will replace the present 1-track structure.

BOSTON, MASS.—Final arrangements were made on July 30 between the city and the U. S. Government regarding the Chelsea south bridge, and the city will erect a temporary south draw, 100 ft. wide which will meet the demands of the government for a wider draw than is at present in use. With the temporary draw to the present bridge, it is estimated that the requirements of the government will be complied with for at least 15 years.

SAYBROOK, CONN.—Bids will be received until 4 p. m., Aug. 15, by the Saybrook and Lyme Connecticut River Bridge Commission, Saybrook, James H. Day, Secy. and Treas., for constructing the superstructure of a highway bridge over the Connecticut River between the towns of Old Saybrook and Old Lyme. The bridge is to be of 8-deck riveted spans of about 159 ft., 2-deck riveted spans of 122½ ft., 1-deck Scherzer rolling lift draw in two wings, total length, 282 ft. Boller & Hodge, are Consulting Engrs., 149 Broadway, New York. This is an extension of date from Aug. 10.

MASSENA, N. Y.—The Town Board has awarded contract, it is stated, for constructing a 600-ft. suspension bridge over River de Grasse, Massena Center, to H. D. ROBINSON CO., at $39,000.

BAYSIDE (L. I.), N. Y.—Plans have been prepared by the Department of Bridges, New York, for a bridge 48 ft. wide to be constructed over Little Neck Creek on Broadway. Estimated cost, $130,000.

NEWARK, N. J.—Bids are asked until 3 p. m., Aug. 8, by the Board of Chosen Freeholders for bridges in Bloomfield, West Orange, Essex Fells and North Caldwell. James Owen is County Engr.

YARDLEY, PA.—The Philadelphia & Reading Ry. is having plans drawn for a new concrete 4-track bridge over the Delaware River at Yardley. Estimated cost, $500,000. The bridge will have 15 spans.

*RENWICK, PA.—C. H. REIMARD, of Bloomsburg, Pa., has been awarded contract by the Columbia County Commissioners, for a permanent floor in the Berwick-Nescopeck bridge across the Susquehanna River here at $26,668. Bids were opened on July 19. List of bidders noted last week.

YORK, PA.—Bids are asked until 10 a. m., Aug. 25, by the York County Commissioners either for the removal of present College Ave. bridge and the erection of an entirely new one of various spans and approaches with reinforced concrete, or for the alteration, repair and improvement of the present bridge with concrete and other materials. Plans and specifications are on file at the office of the County Commissioners. William H. Strine is Clk.

PHILADELPHIA, PA.—See item under Streets and Roads.

PHILADELPHIA, PA.—The Councils on July 28 passed a bill apportioning the new $5,000,000 loan. Of this $35,000 will be spent in repairs to sewers and inlets and $50,000 in repairs to bridges.

NANTICOKE, PA.—Judge Garmon, on July 22, approved the report of the viewers and the Grand Jury favoring the erection of a county bridge between Nanticoke and West Nanticoke. Bridge will be 18 ft. wide. Estimated cost, $150,000.

HOLLIDAYSBURG, PA.—Bids are asked by the Commissioners of Blair County until noon, Aug. 9, for the following bridges: Reinforced concrete arch bridge over Brush Run, near Bald Hill, on line between Frankstown Township and Blair Township, span 32 ft.; rise 8 ft.; width of roadway 18 ft.; parapet walls 4 ft. high; and necessary wing walls; reinforced concrete arch bridge over Laurel Run at Reightown, in Antis Township, skew span 55 ft.; skew angle 64°; right angle span 49 ft. 5¾ ins.; rise 8 ft.; width of roadway 16 ft.; parapet walls 4 ft. high; and necessary wing walls; reinforced concrete arch bridge over Bald Eagle Creek, near the Paper Mill at Tyrone, skew span 70 ft. 9¾ ins.; skew angle 70°; right angle span 75 ft.; rise 11 ft.; width of roadway 30 ft.; width of sidewalk 6 ft.; parapet walls 4 ft. high; and necessary wing walls; concrete abutments and necessary wing walls for steel beam bridge over Brush Run at Hart's Brick Yard, in Frankstown Township, skew span 28 ft.; width of abutments 14 ft. 6 ins.; top of foundation to bridge seat 6 ft. 8 ins.; width of bridge seat 1 ft. 3 ins.; foundation 4 ft. deep; creosoted wood block floor; concrete abutments and reinforced concrete wing walls for steel truss bridge over Clover Creek at Homer Hewitt's farm in Huston Township, width of abutments 18 ft.; span 39 ft.; bridge seat 6 ft. 8 ins.; above foundation; width of bridge seat one ft. 9 ins.; foundation 5 ft. deep; creosoted wood block floor. W. S. Hostler is Clk.

PITTSBURG, PA.—The Pennsylvania Lines West of Pittsburg on July 25 awarded contract to the McKELVEY-HEINE CO. for the construction of a number of concrete bridges and spans to be erected about the right of way of the company on its new Cumberland branch. The work on the bridges and arches will start at once.

AUGUSTA, PA.—The Southern Ry. Co., D. W. Lum, Ch. Engr., Washington, D. C., will construct a pivot pier and draw span at Washington St. bridge.

McKEESPORT, PA.—Governor Stuart on July 19 approved the charter of the McKeesport & Mifflin Bridge Co. to build a bridge over the Monongahela River at McKeesport. The company has a capital of $5,000, and the incorporators are: M. Kirkland, J. M. Hoffman, T. Frank Wolf and George Baehr, McKeesport, and C. P. Goehring, Irwin.

BALTIMORE, MD.—A permit was granted the Baltimore & Ohio R. R. Co. on July 29, to start work on the erection of the bridge carrying Hamburg St. over its tracks in South Baltimore. The ordinance, which requires the railroad to eliminate all grade crossings in South Baltimore, requires that it shall begin work before Aug. 16, 1910. There will be four bridges, which will carry Lee, Hamburg, Cross and Stockholm St. over the tracks.

BALTIMORE, MD.—Bids are asked by the Board of Awards, care of the City Register, until 11 a. m., Aug. 10, for furnishing all the material and labor and equipment and constructing the sub and superstructure of Poplar Grove St. Bridge. B. T. Fendall is City Engr.

CUMBERLAND, MD.—The Garrett County Commissioners have decided to erect two wrought iron bridges, both to span the Potomac River, one at Dobbin and one at Wilson in the eastern end of the county on the line of the Western Maryland R. R.

GASSAWAY, W. VA.—Elk River & Little Kanawha R. R. has awarded contract to T. W. KIRKBRIDE, 16½ Campbell Ave., Roanoke, Va., for the erection of 41 bridges to cost $40,000.

CENTERVILLE, ALA.—The Birmingham, Selma & Pensacola R. R. Co., H. E. Raynolds, Secy., will construct an iron bridge over the Cahaba River in connection with the proposed route from Centerville to Selma, and will also build a number of wooden trestles.

JONESVILLE, LA.—Frank Janes, Oak Grove, La., will erect a 300-ft. bridge across Tiger Bayou and 120-ft. bridge over Pine Bayou in connection with the construction of a 6-mile timber road from Terry to Jonesville, S. Taylor Jackson, Pioneer, La.

ST. CHARLES, LA.—Morgan's Louisiana & Texas Ry. & S. S. Co., will construct a draw bridge over Bayou Des Allemandes between Lafourche and St. Charles Parishes, authority having been obtained from the Secretary of War. Work will begin in Sept. 1. D. K. Colburn, New Orleans, La., is Bridge Engr.

LOUISVILLE, KY.—Jefferson County and Hardin County will construct a wagon bridge across Salt Lake. Estimated cost, $30,000. C. F. Taylor, Jefferson County Comr, Louisville, or W. C. Montgomery Hardin County Comr. Elizabethtown, Ky., may be addressed.

CINCINNATI, OHIO.—The KING BRIDGE CO., of Cleveland, has secured contract, it is reported, for rebuilding the Cincinnati Southern Ry. bridge over Tennessee River at about $1,000,000.

CINCINNATI, OHIO.—Bids are asked by the County Commissioners until noon, Aug. 19, for the following county work: Under Specification No. 92, for a concrete bridge on Duckcreek Road in Columbia Township. Fred Dreihs, is Clk.

HAMILTON, OHIO.—The CAPITOL CONSTRUCTION CO., has been awarded contract by the County Commissioners for the construction of a bridge over Elk Creek in Madison Township at $5,850.

CLEVELAND, OHIO.—Bids are asked until 11 a. m., Aug. 10, by the County Commissioners for bridge work per Report No. 2679, jetties, Chagrin River at Gates Mills bridge. Frank R. Lander is County Surv.

The Pennsylvania R. R. Co. has reached an agreement with the Board of County Commissioners, the result of which will be the elimination of the Dunham Road crossing in Bedford Township by an overhead bridge, from the corner of Libby Road and Bedford Road to Dunham Road. The total cost of the bridge will be, according to estimates submitted, $120,000, of which the railroads will pay $90,000, the Pennsylvania R. R. paying $80,000 and the Wheeling & Lake Erie R. R. the remainder. The bridge will be about 1,200 ft. long.

YOUNGSTOWN, OHIO.—Bids for constructing the new concrete arch bridge at Andrews Hollow in Elm St., have been opened at the office of the Public Service Director as follows: Charles H. Connell, $27,205; Turner & Olson, $32,950; Rood & Scott, $38,580; James McCarren, $34,960; Chambers & Heasley, $34,395; Louis Adovasio, $27,785; Youngstown Sales Co., $35,760; Carpenter & Fleming, $30,767; S. H. DeGrott, $29,170.

WASHINGTON, IND.—The Commissioners of Davis and Knox Counties have signed an order for the construction of a new bridge over White River, near Edwardsport. Bids will be asked in a few weeks.

INDIANAPOLIS, IND.—The Commissioners of Marion County are asking for bids for the construction of five new concrete culverts, one in Lawrence Township and two each in Franklin and Decatur Townships. Albert Lahm is County Audr.

WABASH, IND.—Bids are asked until 1 p. m., Aug. 10, by the Commissioners of Wabash and Huntington Counties at the office of J. P. Noftzger, County Audr., Wabash County, for the construction of a new bridge on the county line.

MICHIGAN CITY, IND.—Contract for removing the wrecked portion of the Franklin St. bridge has been awarded to the GREAT LAKES DREDGE & DOCK CO., of Chicago, Ill., at $4,500.

MISHAWAKA, IND.—Bids are asked until Aug. 11 for constructing a concrete beam bridge over Auten ditch. William Moore is City Engr.

GROVER, MICH.—Bids are asked until 2 p. m., Aug. 15, by the town Boards of Lake and Grover and the committee of the County Board for Marinette County, at the office of the County Clerk, Marinette, for the construction of a steel bridge between the towns of Lake and Grover. J. A. Tiedjens is Chn. Town of Grover. Levi Sanborn, is Chn., Town of Lake.

GROSSE ISLE, MICH.—Benjamin Doublas, of Grosse Isle, Engr. Grosse Isle Ry. Co., has made preliminary surveys, etc., for the construction of a bridge which the company is considering constructing from Wyandotte to Grosse Isle.

SPRINGFIELD, ILL.—Contract for constructing the bridge over the Sangamon River near Feliopolis, bids opened July 21, has been awarded to FRANK R. MILLER, 218 North First St., Springfield, at $6,349.

UTICA, ILL.—Contract for the new bridge over the Illinois & Michigan Canal at Utica, has been awarded by the Canal Commissioners. The contract calls for an entirely new steel structure 74 ft. long and 20 ft. wide. Work will be completed within two or three weeks.

OAKFORD, ILL.—A new cement and steel bridge to cost $25,000 is to be built across the Sangamon River between Oakford and Kilbourne by the C. P. & St. L. R. R. The bridge is to be supported by one large concrete pier in the center.

DAVENPORT, IOWA.—Plans for the Le Claire St. viaduct here for the C. R. I. & P. Ry. Co. have been filed in the office of the City Engineer.

DES MOINES, IOWA.—The PHEE CONSTRUCTION CO. has secured contract, it is reported, for constructing the viaduct at West Seventh St., at about $50,000.

JOPLIN, MO.—The Missouri, Kansas & Texas Ry. Co., S. B. Fisher, 407 Wainwright Bldg., St. Louis, Mo., Engr., will erect three-pile trestles and concrete culverts in connection with the proposed 3½-mile line from milepost 436.85 to new union depot, Joplin.

KANSAS CITY, MO.—The citizens on July 20 voted to issue $200,000 bonds for the improvement of bridges.

TEXARKANA, ARK.—The Kansas City Southern Ry. Co., A. F. Rust, Resident Engr., Kansas City, Mo.; Texas & Pacific Ry. Co., B. S. Wathen, Ch. Engr., Dallas, Tex., and the St. Louis Southwestern Ry. Co., M. L. Lynch, Ch. Engr., Tyler, Tex., have tentative plans for the construction of a steel viaduct over Oak St., 20-ft. carriage-driveway and concrete sidewalks. Estimated cost, $100,000.

GRANDFIELD, OKLA.—A company has been formed by J. G. Hardin, C. W. Wigham, W. G. Webb, all of Wichita Falls, Tex., to construct wagon bridge across the Red River, 4,000 ft. long.

CHEROKEE, OKLA.—The KANSAS CITY BRIDGE CO., of Kansas City, Mo., has secured contract at $10,000 for the construction of a steel bridge across Salt Lake Fork.

ASPEN, COLO.—Bids will be received until noon Aug. 6 by Charles W. Comstock, State Engr., Denver, for constructing a steel bridge across Maroon Creek, near Aspen.

SEATTLE, WASH.—The Board of Public Works has awarded contract for constructing the West Garfield St. bridge and plank highway to C. GESKE & CO., at $57,757.

SPOKANE, WASH.—Bids will be received by the Board of County Commissioners until Aug. 5 for the construction of four small bent and pile highway bridges.

SHELTON, WASH.—The County Commissioners have awarded contract to the NORTHWEST BRIDGE CO. for the construction of two bridges at about $13,000.

PORT TOWNSEND, WASH.—The contract for the construction of the large bridge across Chimacum Creek at Irondale has been let to W. H. DAVIS, of Olympia, at $6,000.

ANAHEIM, CAL.—CHARLES W. CORBALEY, Pacific Electric Bldg., Los Angeles, has contract to construct a large bridge across the Santa Ana River, between Anaheim and Orange, for the Atchison, Topeka & Santa Fe R. R. Co., to be 1,200 ft. long, and will have concrete piers and abutments, steel girders, etc.

MODESTO, CAL.—Bids will be received by the Clerk of the Board of Supervisors until 10.30 a. m., Aug. 9, for the construction of a joint bridge over the Stanislaus River between the counties of San Joaquin and Stanislaus at the Bailey Ferry Crossing.

SAN DIEGO, CAL.—The County Supervisors have awarded contract to the YOUNG CONSTRUCTION CO., of Los Angeles, for the construction of the San Luis Rey bridge. Bids were opened on July 8. List of bidders noted on July 21.

SAN LUIS OBISPO, CAL.—Contract for constructing the bridge over the Salinas River at Rector Crossing has been awarded to DEACON & HALE, of San Luis Obispo, at $10,118.

EUREKA, CAL.—Bids are asked until 2 p. m., Aug. 8, by the county for a 4-panel wooden truss bridge over the North Fork of Mad River. George W. Cousins is Clk.

TORONTO, ONT.—Bids are asked until Aug. 9 by G. R. Geary, Mayor and Chn. Bd. of Control, for the construction of a reinforced concrete viaduct of beam and slab construction on Western Road.

BUILDINGS.

(*Denotes that this work is advertised in Engineering News.)

NEW YORK, N. Y.—Plans are being prepared by George and Edward Blum, Archs., for a 12-story duplex apartment house to be erected on the southwest corner of 76th St. and Park Ave., at an estimated cost of $1,000,000, for the 76th Street & Park Ave. Co., Frederick Johnson, Pres. The building will cover a plot 133.6x100.6 ft., and will contain three duplex apartments to the floor.

Plans have been prepared by Henry D. Trush for the improvement of the property 146 to 150 West 63d St., between Broadway and Amsterdam Ave., with a fireproof garage. The building will cost $75,000 and will be put up by the Lincoln Square Construction Co., which has negotiations under way with an automobile concern for a lease of the improvement for a long term. The plans

show two entrances connected with a circular driveway to the coach stand in the rear of the structure.

Plans have been filed for a 12-story apartment house to be erected at No. 998 Fifth Ave., the northeast corner of 81st St. The building will have a facade of limestone, with a frontage of 100 ft. on the avenue and 115 ft. in the street, where the main entrance will be located. The building will be thoroughly fireproof and contain apartments for 19 families and will be equipped with two elevators; there will be a sub-cellar for storage purposes, a cellar in which there will be a wine storage room, laundries and ironing room and janitor's quarters. There will be a large interior court, and the entrance in 81st St. will be through an ornamental vestibule. The Century Holding Co., James T. Lee, Pres., is the owner. McKim, Mead & White, 160 Fifth Ave., Archs., estimate the cost of the apartment house at $250,000.

Plans have been filed for two 6-story brick tenements to be erected at the northwest corner of Amsterdam Ave. and 156th St. The corner building will have a frontage of 52.11 ft. in the street and 125 ft. on the avenue; the other house will have a frontage of 47 ft. in the street and a depth of 103 ft. The house on the corner will have accommodations for 34 families, while the adjoining house will contain apartments for 22 families. The cost of these two buildings is placed at $125,000, $75,000 for the corner house and $50,000 for the adjoining one. The Audubon Improvement Co., Henry Aronson, Pres., is the owner. Maximilian Zipkes is Arch., 353 Fifth Ave.

Plans have been filed for a 7-story brick loft building, to be erected on the south side of 29th St., 65 ft. east of Eighth Ave., with a frontage of 90 ft. and a depth of 70 ft. I. Herman Olsen is the owner. A. H. Olson is Arch. Cost, $150,000.

NEW YORK, N. Y.—Nicholas Serracine, Arch., 1170 Broadway, New York, has prepared plans for a Roman Catholic church, to be erected at Lexington Ave. and 76th St., and to cost, complete, $750,000. The facade, on Lexington Ave., will consist of a dome which will rise fully 170 ft. from the curb, flanked by two towers about 150 ft. high, topped by crosses. The building will be of classic Roman architecture.

Plans have been filed for a 10-story brick store and loft building, to be erected at 113 West 27th St., for Otto Wagner, owner, at a cost of $45,000. The facade will be of brick, with trimmings of limestone, and will be of fireproof construction with a frontage of 20 ft. and a depth of 83.6 ft. William Krutzer, 194 Broadway, is Arch.

Warren & Wetmore, Archs., 3 East 33d St., have prepared plans for a chapel to be built at Greenwood Cemetery, Brooklyn, and to cost $225,000. Construction will be of concrete, stone, brick and terra-cotta. There will be one story to the building. This will be occupied by chancel, sacristy, chapel, men's and women's retiring rooms, and organ space. The frontage will be 60 ft. and the sides will extend back for 82 ft. The first floor will be surmounted by a dome and the height from ground line to top of dome will be 82 ft. The building will be of Gothic design throughout with stained glass windows. JOHN THATCHER & SONS, 60 Park Ave., Brooklyn, have the contract. William C. Grassau is Supt.

NEW YORK, N. Y.—Bids will be received by C. B. J. Snyder, Supt. School Bldgs., Dept. of Education, until 3 p. m., Aug. 10, for furniture for equipment of workshop and cooking room in Public School No. 67, on Central Ave. and Olmstead Pl., Glendale, Boro. of Queens; for removal, etc., of the temporary school building now on the premises of Public School No. 82, Kaplan Ave., Hammond and Hornton Sts., Jamaica, and re-erecting same on the premises of Ottilie Orphan Asylum, on Kaplan Ave., Jamaica, Boro. of Queens; for installation of electric equipment in addition to and alterations to present equipment in Public School No. 19, on the west side of Keap St., between South Second and South Third Sts., Boro. of Brooklyn; for pupils' desks and seats for Public School No. 104 (E. H. H. S. Annex), on Fifth Ave., corner 92d St., Boro. of Brooklyn; for alterations, repairs, etc., to rolling doors in Assembly Room at Public School No. 145, on Central Ave., Suydam and Noll Sts., Boro. of Brooklyn.

Bids will be received by Alfred E. Steers, Pres. Boro. Brooklyn, until 11 a. m., Aug. 10, for furnishing all the labor and materials required for repairs and alterations to steam boilers and piping in the Municipal Building, Hall of Records, Kings County Court-House and Borough Hall; for furnishing all the labor and material required for waterproof flooring in the Brooklyn Disciplinary Training School; for furnishing all the labor and materials required for repairs and alterations to plumbing and steam fixtures in the Brooklyn Disciplinary Training School; for furnishing all the labor and materials required for repairs and alterations to carpentry, etc., at Brooklyn Disciplinary Training School.

ALBANY, N. Y.—The bids received by the State Lunacy Commission on July 27 for kitchen and dining-room buildings, conduits, steam mains, feeder cables, sewer and water connection for new groups; including construction, heating, plumbing and electric work at the Kings Park State Hospital, Kings Park, N. Y., were Bliss & Griffiths, 225 Fifth Ave., New York, $131,419; R. T. Ford Co., Rochester, N. Y., $143,000; A. Pasquini, 1123 Broadway, New York, $140,000.

The bids received on same day for kitchen and dining-room building, conduits, steam mains, feeder cables and outside sewer and water connection for new group, additional boiler capacity, North Colony; construction, heating, plumbing and electric work at the Central Islip State Hospital, Central Islip, N. Y., were: Nial Bros. Construction Co., Troy, N. Y., $112,830; R. T. Ford Co., Rochester, $132,000; A. Pasquini, 1123 Broadway, New York, $146,000.

The bids received on the same day for kitchen building, steam mains and feeder cables for new cottages, construction, heating, plumbing and electric work at the Manhattan State Hospital at Ward's Island, New York, were: Edmund D. Broderick, 1382 Lexington Ave., New York, $37,984; A. L. Guidone & Co., 162 East 23d St., New York, $37,441; Charles Wille, 182 State St., Flushing, N. Y., $30,800; Laurence J. Rice, 103 Park Ave., New York, $33,222; Luke A. Burke & Sons' Co., 25 West 42d St., New York, $35,000; Peter Keeler Building Co., Albany, N. Y., $34,993; Nial Bros. Construction Co., Troy, N. Y., $30,807. F. B. Ware is State Arch.; T. E. McGarr is Secy. of Comm., Albany.

THIELLS, N. Y.—The bids received on July 28 at the Letchworth Village under the supervision of F. B. Ware, State Arch., Albany, for the construction of two dormitories and alterations and additions to present buildings were: (1) To construct the additions and alterations to the Rose House, including heating, plumbing and electric conduit work; (2) to do all the work exclusive of the work on the Rose House: N. R. Valkenburgh, Saugerties, N. Y., (1) $3,192, (2) $41,190; Peter Keeler Building Co., Albany, N. Y., (1) $4,181, (2) $47,711; Robert E. McCready, Tuxedo, N. Y., (1) $3,400, (2) $49,500; D. F. Dakin Co., Mount Kisco, N. Y., (1) $3,700, (2) $49,500.

UTICA, N. Y.—The Mohawk Valley Cap Factory will soon build a warehouse on a site recently purchased on the corner of Broad and Mohawk Sts. The building will be 100 × 125 ft., and three stories high. It will have a capacity of 4,000 bales of cotton. The officers of the company are W. Fred Allen, Pres.; John E. McLoughlin, Secy.-Treas. and Mgr.

ROCHESTER, N. Y.—Ground has been broken at South Washington and Spring Sts. for the first building for the Mechanics Institute provided for by the will of Mrs. Susan Bevier. Contracts for it were let on July 26 after a special meeting of the Board of Directors. This new building will be a home for the Fine Arts Department. Claude Bragdon, Cutler Bldg., Rochester, is Arch., and the contract was awarded to the A. FRIEDERICH & SONS CO., 106 Mill St. Work will be pushed as rapidly as possible. No distinct style of architecture will be followed. The main part will be of brick with terra-cotta trimmings of various colors.

CAMDEN, N. J.—Seymour and Paul Davis, 1600 Arch St., Philadelphia, Pa., have completed plans for a manual training school for Camden, N. J., to cost $80,000.

PHILADELPHIA, PA. — Estimates have been asked by Cope & Stewardson, Archs., 320 Walnut St., for the erection of zoological laboratories at a cost of about $300,000, for the University of Pennsylvania. It will be three stories high, 216 × 137 ft., and will be of concrete, brick and stone.

WILLIAM R. DOUGHERTY has been awarded the contract for the erection of a fraternity house for the Alpha Chapter, Phi Kappa Sigma, 36th and Locust Sts., at a cost of about $40,000. Bissell & Sinkler, Bailey Bldg., are Archs.

JOHN G. RUFF has been granted permits for the erection of 36 2-story brick houses in the neighborhood of 30th and Wharton Sts., for John Emerick. Cost, $53,000.

PHILADELPHIA, PA.—The winner of the competition for plans for the new Masonic Home at Elizabethtown, Pa., are C. C. Zantzinger, 139 South 15th St., C. L. Borie and M. B. Medary, of this city, the first two being partners, Mr. Medary associating with them. The jury, made up of Prof. Warren P. Laird, of the University of Pennsylvania, and two architects elected by the 33 competitors, Walter Cook, of New York, and Frank Miles Day, of this city, made the formal announcement on Aug. 1. Eighty buildings will be erected on a tract of 240 acres and the buildings will cost about $350,000, of which the architects' fee will be 6%. The general style will be English domestic Gothic and the design will be worked out in stone.

The following contracts were awarded on Aug. 1 by the Property Committee of the Board of Education: New wings and alterations, Glenwood School, WILLIAM J. SMITH & SONS, $44,457; alterations to High School annex, Germantown, H. E. BATON, $9,852; alterations to High School annex, West Philadelphia, E. C. DURREL, $10,078; alterations to High School annex, Frankford, E. H. STURTS, $2,642.

NANTICOKE, PA.—Bids are asked by the Board of Education until 8 p. m., Aug. 7, for the erection and partial completion of a 16-room school building, to be known as the Lincoln School. Reilley & Schroeder are Archs.

YORK, PA.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Sept. 13, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. post-office at York, Pa.

PITTSBURG, PA.—The American Life & Annuity Society has purchased the old Fifth Ave. Baptist Church property located on outer Fifth Ave., near Dinwiddie St., from W. G. Evans. The lot measures 53 × 100 ft. The church building will be razed and a $75,000 office building of six or seven stories will be constructed by the American Life & Annuity Society, Ferguson Bldg. The company intends to establish headquarters in the new building.

WILMINGTON, DEL.—The club house to be erected for the General Pulaski Polish-American Club will cost $40,000, according to the plans of J. & M. Kennedy. It will be four stories, of brick with Indiana limestone trimmings.

BALTIMORE, MD.—The ENGINEERING-CONTRACTING CO., 502 St. Paul St., Baltimore, has been awarded the contract for the erection of an addition to the United States Fidelity & Guaranty Co.'s building at German and Grant Sts., from plans by Otto G. Simonson, 1210 American Bldg. Its bid was $108,000. Noted last week.

Painter & Posey, Professional Bldg., have been selected as engineers for the addition to the store building of Albert Brager, at Eutaw and Saratoga Sts. The addition will be of brick with four stories and basement, and will be 44 × 100 ft.

The Gwynbrook Distilling Co. has commissioned Frank & Kavanagh, Archs., 328 North Charles St., Baltimore, to prepare plans for the 17-story bonded warehouse structure, 130 × 85 ft., which will cost $40,000. This structure will be erected on the old site at Gwynbrook, on Gwynns Falls, near Baltimore, and will take the place of the larger warehouse that recently collapsed there. The contract for the work has been awarded to JACOB PETERS, 15 East Fayette St., Baltimore.

BALTIMORE, MD.—Wyatt & Nolting, Archs., Keyser Bldg., have prepared plans for the proposed club-house on Third St., near Falls Road, for the Hamden-Woodberry Neighborhood Association, care of Mrs. Donald Hooker, 31 East Mt. Vernon Pl., and will take bids at once. The building will contain an indoor gymnasium, 38 × 70 ft.; an auditorium seating 300; library, clubrooms and office. The cost will be $40,000.

BALTIMORE, MD.—Jacob Epstein, of the Baltimore Bargain House, 204 West Baltimore St., has purchased the property at Baltimore and Liberty Sts., and is contemplating the erection of a warehouse to cost $500,000.

The CALVERT CONTRACTING CO., 210 North Calvert St., has been awarded the contract for the erection of a store building at 9 West Lexington St., for Nathan Gutman & Co., care Mano Swartz, on premises. The building will be fireproof, five stories high, 45 × 125 × 70 ft., and of brick, stone and steel.

TAKOMA PARK, D. C.—Bids are asked by Capt. H. L. Pettus, Constr. Q. M., Walter Reed General Hospital, until noon Aug. 17, for the construction, etc., of one Army Nurse Corps home and one mortuary at the Walter Reed General Hospital, Takoma Park, D. C.

WASHINGTON, D. C.—Bids are asked by R. C. Hollyday, Ch. of Bureau of Yards and Docks, Navy Dept., Washington, until 11 a. m., Aug. 20, for constructing an addition to the garage of the Naval Medical School Hospital, Washington, D. C. Specifications are on file at the office of Engineering News, New York.

*FORT MONROE, VA.—Bids are asked by Capt. Ernest R. Tilton, Q. M. U. S. A., Fort Monroe, until 10 a. m., Aug. 29, for the construction of an addition to Enlisted Men's Artillery School at Fort Monroe, Va., including extension to boiler room for coal bins, and installation of ash hoist. For convenience of bidders in and near New York, plans and specifications may be seen in the office of the Chief Quartermaster, Department of the East, Governor's Island, N. Y.

*FORT MONROE, VA.—Bids are asked by Capt. Ernest R. Tilton, Constr. Q. M., Fort Monroe, until 10 a. m., Sept. 2, for construction of two sets of Field Officers' quarters, including plumbing, heating and electric wiring and fixtures. For convenience of bidders in and near New York plans and specifications may be seen in the Office of the Chief Quartermaster, Department of the East, Governor's Island, New York.

CLARKSBURG, W. VA.—Edwin E. Pruitt, Y. M. C. A. Bldg., Columbus, Ohio, is receiving bids for the construction of a 5-story Masonic temple, to be erected at Clarksburg.

SAVANNAH, GA.—Improvements to cost $150,000 are to be made this fall in the freight terminals of the Seaboard Air Line on Hutchinson Island, at Savannah. W. L. Seddon, Ch. Engr., Portsmouth, Va.

SHREVEPORT, LA.—It is announced that improvements to cost $100,000 will be made to the Cumberland Telephone Co.'s plant. The improvements will include a building and switchboard. D. R. Sharp is Local Mgr.

LOUISVILLE, KY.—A mortgage of $10,000,000 has been issued, according to press reports, for the nominal purpose of improving and rebuilding the Kentucky and Indiana bridge across the Ohio River. The plans include freight terminal improvements extending from 34th St. and the river in a belt line around the western part of the city. The roads behind the plan are the Southern, the Baltimore & Ohio and the Chicago, Indianapolis & Louisville, which control the Kentucky & Indiana Bridge & R. R. Co. Of the $10,000,000 it is proposed to use only $2,000,000 for the new bridge; the other $8,000,000 is to go for terminal improvements. William M. Mitchell is Mgr. and Ch. Engr., Louisville.

ATHENS, OHIO.—The contract for the construction of three school buildings at Athens has been awarded to CHARLES KIRSCHER, of Athens, whose bid was $58,000.

LOGAN, OHIO.—Bids were received as follows by the Board of Education on July 22 for school buildings to be erected: Charles Kirscher, Athens, $64,336; B. F. Bolin, $74,305; Watson & Walters, Columbus, $87,129; E. E. Bope, Columbus, $470,305; R. F. Henry, $72,019; L. C. Krag, $69,582; H. S. Van Gundy, Lancaster, $84,740.

LIMA, OHIO.—The following bids were opened on July 28 for the construction of additions to the Lima State Hospital: The National Fireproofing Co., Cuyahoga Bldg., Cleveland, was the lowest bidder at $292,274, and R. H. Evans & Co., Columbus, bid $325,000.

EAST LIVERPOOL, OHIO.—Plans and specifications have been completed for a 6-story reinforced concrete grocery building, to be erected by Riggs Bros. Bids are being received.

CLEVELAND, OHIO.—The city has voted $250,000 of bonds for the establishment of a tuberculosis sanatarium. Robert Hoffman is City Engr.

TOLEDO, OHIO.—According to reports a casino in Lake Erie Park will be built to replace the one recently destroyed by fire, the cost of which will be $150,000. It will be erected by the Toledo Railways & Light Co., L. E. Beilstein, V. P. and Gen. Mgr.; J. L. Ross, Ch. Engr.; E. R Kelsey, Park Mgr., all of Toledo. Shapiro & Tratcher, the present lessees of the casino and park contemplate erecting this structure to seat 1,700 people on lower floor. The approach will be in the form of a circular bridge enclosing a miniature lake. A pier is also proposed.

AKRON, OHIO.—The following bids were received by the School Board on July 26 for the construction of the South High School: The AKRON STORAGE & CONTRACTING CO., Akron, $161,[illegible]2 (awarded contract); George W. Carmichael & Co., Akron, $165,617; John Crisp & Son, Akron, $171,190; George B. Long, Akron, $17[illegible]. The building will be 200 × 125 ft. and three stories high. It will be constructed of brick with either stone or terra cotta trimmings and will contain about [illegible] rooms. The school is to be located on the Thornton property at the corner of Thornton and Coburn Sts.

COLUMBUS, OHIO.—The Terminal Realty Co. plans to erect a fireproof warehouse on the site north of the Union Station. D. W. McGRATH, New First National Bank Bldg., Columbus, is the contractor.

Plans are being prepared for a $60,000 men's hotel to be erected on West Long St., Columbus. The property is owned by G. [illegible] Earl and has been leased by the Columbus-Hoster Brewing Co., which will erect the structure.

COLUMBUS, OHIO.—The Central Ohio Paper Co., 70 East Gay St., Columbus, has decided to erect a 5-story reinforced concrete warehouse at the corner of Gay and Young Sts. Otto L. Darst, Arch., Brunson Bldg., is drawing the plans for the structure and the contract will be awarded soon.

FORT WAYNE, IND.—Tentative plans of the Pennsylvania Lines West of Pittsburg include a passenger terminal, which will be built in Fort Wayne, Ind., to cost $[illegible]. Thomas Rodd, Ch. Engr., Pittsburg, Pa.

FRENCH LICK, IND.—It is reported that Thomas Taggart is considering plans for the erection of an addition to his hotel at this city.

HUNTINGTON, IND.—The Commissioners of Huntington County have ordered plans on which to invite bids for completely remodeling and enlarging the county jail.

INDIANAPOLIS, IND.—Frank S. Fishback, 415 South Penn St., has purchased a site at South and Delaware Sts., upon which to build a warehouse, 60 × 200 ft. The building will be of reinforced concrete. Plans are being prepared.

JEFFERSONVILLE, IND.—The Pittsburg, Cincinnati, Chicago & St. Louis Ry. Co. is planning to build a freight depot in this city. R. E. McCarty, Gen. Supt., Columbus, Ohio.

LAPORTE, IND.—Frank H. Morrison has ordered plans on which to ask for bids for the erection of a business block and auditorium at Monroe and State Sts.

SHELBYVILLE, IND.—The School Board has awarded a contract for the construction of a high school building to W. [illegible] BARNES, of Loganport, Ind., at $72,670. The heating contract has been awarded to the PECKHAM CO., of Cincinnati, Ohio.

DETROIT, MICH.—The Detroit Museum of Art has purchased an entire block bounded by Woodward, Frederick, Farnsworth and John R. Sts. for $108,200. A building will be erected on this site. W. C. Weber, 480 Third Ave., is interested.

Lewis Kamper, Fine Arts Bldg., is preparing plans for a 4-story and basement hotel, 50 × 100 ft., for F. E. Schultz, Morgan House. Press and stock brick, Bedford stone, composition roof, hardwood finish and floors, ceramic tiling and electric fixtures will be used in construction.

DETROIT, MICH.—Lewis Kamper, Fine Arts Bldg., has let the following contracts for the proposed 7-story and basement store and office building for Lewis F. Ward, 97 Ferry Ave. East: Structural iron work to WHITEHEAD & KALES, Beecher Ave. and Michigan Central R. R.; composition roofing to EAGLE CORNICE & SLATE CO., 369 Fort St., West; steam heating and plumbing to ERNST BROS., 441 Woodward Ave.; plastering to H. J. FRISK, 379 Hendricks Ave. Cost, $60,000.

Mildner & Eisen, Hammond Bldg., are preparing plans for a 10-story and basement store and office building, 90 × 110 ft., for Fred Saunders, 141 Woodward Ave. The building will be constructed of white enamel and stock brick, granite, Bedford stone, terra cotta, with composition roof, metal, skylight, structural iron, hardwood finish and floors marble, mosaic tiling and electric fixtures. It is to be fireproof and will cost $200,000.

PALATKA, MICH.—John D. Chubb, 112 Clark St., Chicago, Ill., has let the general contract for a school addition for the Board of Education of Palatka, to FOSTER CONSTRUCTION CO., 301 Caswell Block, Milwaukee, Wis.

FLINT, MICH.—Clark & Munger, Shearer Bros. Bldg., Bay City, Mich., let the general contract on July 15 for a school for the Board of Education of Flint, Mich., Thos. Doyle, Pres., 520 North Saginaw St., to BURKE, SMITH & NELSON, of Muskegon, Mich.

LANSING, MICH.—The State of Michigan, Fred M. Warner, Governor, Lansing, is contemplating a $1,000,000 addition to the present Capital Building at Lansing. The appropriation will probably be made in the fall.

IRON RIVER, MICH.—John D. Chubb, 112 Clark St., Chicago, Ill., has let the general contract for a 2-story brick high and grade school, to cost $55,000, for the Board of Education of Iron River, to the FOSTER CONSTRUCTION CO., 301 Caswell Bldg., Milwaukee, Wis.

CHICAGO, ILL.—We are officially advised that the contract for placing piles in the foundations of the Waters School, West Wilson and North Campbell Aves., Chicago, has been awarded to the RAYMOND CONCRETE PILE CO., 30 Church St., New York; A. F. Hussander is Acting Arch., Chicago Bd. of Education.

The purchase of the land and building at 189 to 192 Michigan Boulevard, adjoining the McCormick Building, for $1,148,000, is for the purpose of building a 21-story building and the practical duplication of the McCor-

mick Building. Construction will begin May 1. Plans are being prepared by Holabird & Roche, Monadnock Bldg. The building will have a total frontage of 183 ft. on Michigan Boulevard, the present building having a frontage of 101 ft. on the boulevard and 171 ft. on Van Buren St. It will cost about $1,500,000.

Plans are being prepared by L. E. Stanhope, Arch., 184 La Salle St., for the Eighth Church of Christ, Scientist, to be erected on the northeast corner of Michigan Boulevard and 44th St. The structure will cover an area of 100 × 160 ft., will be one story in height, with a seating capacity of 1,400. The exterior will be of Bedford stone in Roman classic style. The entrance will be on Michigan Boulevard through eight monolith Ionic columns. The building will have a curved dome following the lines of the Pantheon in Rome. There will be ten entrance and exit doors, two of these being on 44th St. The auditorium will be entered through a foyer 3,000 sq. ft. in area and then up five stairs of unusual width. A large pipe organ will be installed. The cost will be $100,000.

CHICAGO, ILL.—The W. W. Shaw and Caleb Marshall estates will build at the northeast corner of Adams and Clinton Sts., a 16-story steel, fireproof store and loft building, to cost $900,000.

The Kedzie Amusement Co. soon is to begin the construction of a $100,000 theater at 3202 West Madison St. For this purpose Fremont B. and William B. Malcolm, 153 Washington St., have leased from Mrs. Mary Keep Otis the land, which has a frontage of 125 ft. and a depth of 114 ft., for 30 years. The foundations for the building are in. The building will be three stories high and the theatre will have a seating capacity of 1,650. It will be completed Sept. 15.

OAK PARK, ILL.—Patton & Miller, Archs., 140 Dearborn St., Chicago, are revising plans for a $50,000 high school at Oak Park, Ill.

Two bids for the erection of a tubercular ward building of the Cook County Infirmary at Oak Forest were received by the County Board on July 25. The bid of the C. A. Moses Construction Co., 138 Washington St., on the former, was $179,850, while that of the Warner Construction Co., 98 Jackson Boulevard, was $211,984. The C. A. Moses Construction Co. also bid $17,310 for the construction of an abattoir to be erected in connection with the infirmary building.

MILWAUKEE, WIS. — Albert Randolph Ross, Arch., 16 East 42d St., New York, has been awarded first prize on the competitive plans for the central police station and Criminal Courts building to be erected at a cost of $250,000. The judges were Chief Janssen, W. Carbys Zimmerman, Prof. Charles A. Henderson and Allen B. Pond, of Chicago. The first prize carries with it the superintendence of the construction work, with a fee of 5% of the cost. Second prize, Denison & Hirons, 475 Fifth Ave., New York, $1,000; Spencer & Powers, 17 Van Buren St., Chicago, third, $750, and Brust & Philipp, 82 Wisconsin St., Milwaukee, fourth, $500. The bond issue to carry on this work will be made by Jan. 1. The building will be three stories and basement, 120 × 180 ft., of Indiana limestone and granite. The first floor will contain the general offices, 29 cells and a municipal garage. On the second floor will be the administration department, matron's rooms and District Court room, while the patrolmen's quarters, electrical department and gymnasium will be located on the third floor. It will be fireproof and of marble interior finish, with standard plumbing and steam heating.

H. SCHMITT & SON, 684 Jackson St., Milwaukee, have been awarded the masonry, carpentry, cement and painting contract on the Milwaukee Country Club building. The heating and plumbing and smaller contracts have not been let. W. H. Schuchardt, Archt., 716 Goldsmith Bldg., Milwaukee. Total cost, $52,000.

MILWAUKEE, WIS.—Patrick Cudahy has announced that he will soon erect a 12-story store, office and light manufacturing building, 120 × 150 ft., at Wells and Third Sts.

NASHOTAH, WIS.—S. J. BROCKMAN, Stephenson Bldg., Milwaukee, has been awarded the contract to build a 2-story library at Nashotah, for the Nashotah Mission House, at a cost of $60,000. The building will be of stone, brick and steel. John Suttcliffe, 218 La Salle St., Chicago, is Arch.

ROCHESTER, MINN.—Patten & Miller, Archs., 140 Dearborn St., Chicago, Ill., are receiving estimates for a 3-story high school, 70 × 150 ft., for the Board of Education at Rochester. Cost, $90,000. The building will be constructed of brick. John E. McGovern is Secy. of the Board.

PLATTSMOUTH, NEB.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Sept. 19, for the complete construction of the U. S. post-office at Plattsmouth.

ABERDEEN, S. DAK.—It is reported that the Chicago, Milwaukee & St. Paul Ry. Co. will erect a station at Aberdeen, to cost $250,000. C. F. Loweth is Engr. & Supt. of Bridges and Buildings at Chicago, Ill.

WACO, TEX.—The contract for the construction of the 20-story Amicable Life Insurance Co. building has been awarded to the WESTLAKE CONSTRUCTION CO., 717 Locust St., St. Louis, Mo.

*PORT ARTHUR, TEX.—Bids are asked until 3 p. m., Sept. 9, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. post-office and custom house at Port Arthur.

SAN MARCOS, TEX.—Bids will be received by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Sept. 6, for the complete construction of the U. S. post-office at San Marcos, Tex.

FORT GEORGE WRIGHT (Spokane post-office), WASH.—Bids are asked by Lieut. A. L. Sneed, Const. Q. M., until 11 a. m., Aug. 24, for the construction, plumbing, hot water heating and wiring and fixtures for electric lighting of one 2-story brick annex to post hospital at Fort George Wright, Wash.

SEATTLE, WASH.—A building permit has been issued to the Polson Realty Co. for the construction of a 6-story concrete warehouse, at 63 Columbia St., to cost $90,000. Contract not yet let. Saunders & Lawton are Archts., Alaska Bldg.

A permit has been taken out by the Grand Trunk Pacific Dock Co. for the construction of a 3-story frame warehouse, 104 × 600 ft., to cost $175,000. M. DOW, has the contract. Blackwell & Baker, Mutual Life Bldg., are Archs.

Plans have been prepared by Gaggin & Gaggin, Archs., University Block, Syracuse, N. Y., for a 40-story office building, to be constructed at the corner of Second Ave. and Yesler Way, for L. C. Smith. This building is to be fireproof throughout, and is estimated to cost $2,000,000. Bids will be received at once for the foundation and construction.

TACOMA, WASH.—The Tacoma Board of Education has sold to the Trustees of the Ferry Museum and Washington State Historical Society one acre on Cliff Ave. north of the Stadium which the people at a special school election decided to sell for the purpose of providing a building site for the Museum and Historical Society. Preparations for the construction will be made immediately. The cost is estimated at $200,000 or $300,000.

TACOMA, WASH.—The general contract for the construction of the 3-story pressed brick and cut stone hospital for the Northern Pacific Ry. Benefit Association, has been awarded to E. J. ROUNDS & CO., Globe Block, Seattle, Wash. Reed & Stem, Endicott Bldg., St. Paul, Minn., are Archs. Cost, $50,000.

*KLAMATH FALLS, ORE.—The contract for the construction of a 3-story Odd Fellow's temple in this city has been let to R. E. WATTENBURG, of this city, at $41,250.

LOS ANGELES, CAL.—The following bids have been received by the County Board of Supervisors for the erection of a detention home at the corner of Yale and College Sts.: General contract—Alta Plaining Mill Co., $47,650; Richards Neustadt Co., $48,452; J. V. McNeil, $50,417; J. F. Atkinson, $50,470; F. O. Engstrom Co., $53,197; Los Angeles Plaining Mill Co., $55,030; Chas. F. Lange, $56,382. The building will be 300 × 165 ft., with a central court 100 × 130 ft., paved with concrete. There will be a concrete basement under the entire building. The floor and walls up to the ground level will be of concrete, the balance of the walls of brick. The roof will be of slate and all partitions of hollow tile. The front portion of the building will be two stories in height, the balance one story.

MODESTO, CAL.—On July 18 the Board of County Supervisors awarded the contract for the new county jail to the PACIFIC CONSTRUCTION CO., 16 California St., San Francisco, whose bid was $50,875. Other bids were: Western Bridge & Construction Co., $56,500; Stewart Jail Works, $52,348; M. G. West & Co., $52,960; Lindgren & Co., $53,280; W. A. Stevens, $53,700.

STOCKTON, CAL.—The San Joaquin Hospital Association has been incorporated to build and equip a $200,000 hospital. The building is to be fireproof. The site will include nine acres of ground just north of North St., and the property is to be put in fine condition for such an institution. The following Stockton men are the incorporators and will serve as directors: O. H. Close, John H. Owen, T. B. Littleton, T. W. Hummel, T. F. Gregory, H. W. Hickmon and L. T. Freitas. The plans for the building are being drawn by Walter King, Arch., 242 East Main St., Stockton.

OAKLAND, CAL.—On July 20 the Board of Public Works awarded the contract for the construction of the proposed police telegraph and fire alarm building, to the RICKON-EHRHART ENGINEERING & CONSTRUCTION CO., Shrader and Hays Sts., at $44,794.

SANTA CRUZ, CAL.—Bids were received as follows on Aug. 1 by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post-office at Santa Cruz, Cal.: W. W. Henderson, San Francisco, $118,145; North Western Construction Co., Wahpeton, N. Dak., $95,000; Hoyt Bros., Santa Rosa, Cal., $135,390; Richards-Neustadt Construction Co., Los Angeles, Cal., $140,000; Klenk & Muller, San Francisco, $125,800; Campbell Building Co., Salt Lake City, Utah, $113,500; North Western Construction Co., Kearney, Neb., $105,000; D. J. Duffy, San Francisco, $121,396; M. Fisher, San Francisco, $117,832; A. W. Anson, Albuquerque, N. Mex., $116,000.

VISALIA, CAL.—Carl Thayer, Arch., of Visalia, is drawing plans for a 3-story brick hotel to be erected at Main and Bridge Sts., for George Ballou. The building will be 66 × 110 ft., with pressed brick exterior over steel frame, steam heat, plumbing and composition roof.

BOISE, IDAHO.—The McCarthy Apartment Co. will immediately erect a double 5-story apartment house at the northwest corner of 16th and Jefferson Sts., at cost of $150,000. Plans have been completed by Nisbet & Paradice, who will have direct supervision over the structure. The incorporators of the company are B. Nisbet, E. Vaughn and R. Horn. There will be electric lights, telephones and similar conveniences in every apartment.

LEWISTON, IDAHO.—Bids were received as follows on July 27 at the office of James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office at Lewiston, Idaho: William H. Maxwell, Great Falls Mont., $116,725; Northern Construction Co., Milwaukee, Wis., $123,500; Newport Engineering Co., Portland, Ore. $92,500; Sound Construction & Engineering Co., Seattle, Wash., $96,034; Northwestern Construction Co., Kearney, Neb., $105,000; Dole & Collins, Lewiston, Idaho, $114,497; Interstate Construction Co., Saginaw, Mich., $137,200.

MONTREAL, QUE.—The contract is about to be let for the addition to the Windsor Street station by the Canadian Pacific Ry. Co., when an expenditure of about $1,000,000 will be undertaken under the architectural supervision of W. S. Painter, of that company. Since last autumn a large amount of sub-work has been accomplished, the reinforced concrete to support the widened train shed being about completed. From 350 to 400 concrete pillars have been built up from the solid rock. Seventeen bays are in place and about 30 more will have to be constructed. As soon as this contract is awarded operations on the station will be pushed forward, the station, 70 ft. deep, being extended down to St. Antoine St. and along that thoroughfare to a distance of 185 ft., a like height to be maintained all the way round. A tower will surmount the structure at the corner of Windsor and St. Antoine Sts.

TORONTO, ONT.—Bids are asked by Curry & Sparling, Archs., 90 Yonge St., until Aug. 10, for the erection of a fireproof building on Melinda St.

Bids are asked by the Chairman of the Building Committee, until Aug. 15, for the construction and completion of the buildings for the out-patient department and emergency hospital in connection with the Toronto General Hospital. Darling & Pearson, 2 Leader Lane, Toronto, are Archs. in charge of the work.

WINNIPEG, MAN.—McLean Bros. have awarded to C. W. SHARP & SON, the contract for a $175,000 hotel to be erected at Main and Rupert Sts.

WATER SUPPLY—IRRIGATION.

(*Denotes that this work is advertised in Engineering News.)

EAST HARTFORD, CONN.—The East Hartford Fire District has decided to purchase its own pipe for the proposed extension of the water main and to ask bids for doing the work. Plans and specifications will be ready for bids soon. C. Henry Olmsted is Engr.

*BATAVIA, N. Y.—We are officially advised that bids were received on July 23, by Fred New Village Clk., for furnishing all material and building a concrete dam of 600 cu. yds., 500 ft. 16-in. c.-i. pipe, screen chambers, waste gate and valves. The lowest bidder was the Herbert Engineering Co., of Easton, Pa. R. A. Wentworth is Engr.

NEW YORK, N. Y.—Bids are asked by Henry S. Thompson, Comr. Water Supply, Gas and Electricity, until 2 p. m., Aug. 10, for furnishing and delivering hydrants, gates, etc., and brass and composition castings.

*ITHACA, N. Y.—Bids will be received by the Mayor and Board of Public Works addressed in care of the City Clerk, until 3.30 p. m., Aug. 10, for about 9,000 lin. ft. of Class B, 24-in. c. i. pipe, with such special castings as are needed for the same, to be manufactured according to the Standard Specifications of the American Water Works Association for Cast Iron Pipe and Special Castings. Donald F. McLeod is City Engr.

SILVER SPRINGS, N. Y.—The citizens have voted to issue $14,000 of bonds for a new well and a pumping station.

JERSEY CITY, N. J.—The Street and Water Commissioner on July 23 decided to use $8,000 for laying new water mains in the Hamilton Park section of the city.

CHAMBERSBURG, PA.—On July 21 the citizens voted to authorize a bond issue for $235,000. Of this $150,000 will be used to build a gravity water system. A sewage disposal plant will be built for $65,000, and $15,000 was granted for paved streets.

PHILADELPHIA, PA.—See item under Streets and Roads.

EMPORIUM, PA.—Bids will be received until Aug. 9 by the Emporium Water Co., at Emporium, for constructing a reservoir and laying three miles of 12-in. c.-i. pipe.

LOCH RAVEN, MD.—Alfred M. Quick, Water Engr., City Hall, Baltimore, is preparing plans for the proposed dam at Loch Raven, and plans are also being prepared at his office for a filtration plant at Montebello, to cost $1,500,000.

HANCOCK, MD.—See item under Sewers.

BALTIMORE, MD.—Bids are asked by the Board of Awards until 11 a. m., Aug. 10, for furnishing material and erecting a pumping station for pipe line in South St. Edward D. Preston is Inspector Bldgs.

BALTIMORE, MD.—See item under Light and Power.

*WASHINGTON, D. C.—We are officially advised that bids were received as follows on July 27 by the District Commissioners for the following sizes of c.-i. pipe and specials for the present year. (a) 3-in.; (b) 4-in.; (c) 6-in.; (d) 8-in.; (e) 12-in.; (f) 20-in.; (g) specials: Glamorgan Pipe & Foundry Co., Lynchburg, Va., (a) $29.80; (b) $25.85; (c) $24.85; (d) $24.85; (e) and (f) $24.60. United States C. I. Pipe & Foundry Co., 1421 Chestnut St., Philadelphia, Pa., (a) to (f) inclusive, $26.30; (g) $54.90 (own plans and specifications). Standard C. I. Pipe & Foundry Co., 112 North Broad St., Philadelphia, (a) $31.08; (b) $26.08; (c) to (f) inclusive, $25.08; (g) $48 (New England Water-Works Association plans and specifications). Lynchburg Foundry Co., Lynchburg, Va., (a) $29.95; (b) $26.40; (c), (d), (e) $25.40; (f) $25.20; (g) $52.75 (own plans, etc.). Camden Iron Works, 400 Chestnut St., Philadelphia, (a) $33.60; (b) $28.50; (c) to (e) $26.25; (f) $25.50; (g) $38.24 (N. E. W.-Wks. plans, etc.) and $56 (own plans, etc) Weatherly Foundry & Machine Co., Weatherly, Carbon County, Pa., $51.74 (N. E. W.-Wks. plans, etc.).

KEYSER, W. VA.—The city has voted $30,000 of bonds for water-works improvements and will construct a 30,000,000-gallon reservoir, etc.

ROMNEY, W. VA.—The citizens have decided to improve the water system, and a committee has been appointed to engage an engineer to investigate. Estimated cost, $30,000.

ANDERSON, S. C.—Anderson Water, Light & Power Co. will install a water system and construct a station on Bailey's Creek to pump water to a 600,000-gallon coagulating basin. The first installation will supply 500,000 gallons daily, together with present supply, making 750,000 gallons. Ultimate capacity, 6,000,000 gallons daily. H. S. Jaudon, Savannah, Ga., is Engr. Estimated cost, $10,000.

ATLANTA, GA.—The city on July 19 awarded contract at $28,478 to the NICHOLS CONTRACTING CO., 815 Equitable Bldg., Atlanta, for the construction of two coagulating basins, intake tower and overflow tower at water-works. Reinforced-concrete construction.

WRIGHTSVILLE, GA.—Bids were opened on July 21 for furnishing material and constructing water-works. Contracts have been awarded as follows: For 220 tons c.-i. pipe to the U. S. CAST IRON PIPE CO., Chattanooga, Tenn., at $24.83 per ton; 100,000-gallon tank on tower 92 ft. high to R. D. COLE MFG. CO., Newnan, Ga., at $4,200; one boiler, 72 ins. × 18 ft. with stack, to CASEY-HEDGES CO., Chattanooga, Tenn.; two compound duplex pumps to PLATT IRON WORKS, Dayton, Ohio; valves and hydrants to COLUMBIA IRON WORKS, Chattanooga, Tenn.; constructing reinforced-concrete reservoir, pipe laying, etc., to MUNICIPAL ENGINEER & CONSTRUCTION CO., Chattanooga, Tenn., at $4,863. Contract for sinking artesian well not let. Arthur Pew is Engr., Atlanta.

ATHENS, ALA.—The city has issued $7,500 of bonds for water-works and sewer construction.

OPELIKA, ALA.—See item under Light and Power Plants.

BATON ROUGE, LA.—Alvord & Burdick, 140 Dearborn St., Chicago, Ill., are preparing plans and specifications for a $40,000 reinforced-concrete reservoir at Baton Rouge, for J. H. Wood, Baton Rouge Water Co. Estimates for bonds will shortly be asked for.

EUCLID, OHIO.—Bids will be received until Aug. 22 by Nelson J. Brewer, Village Clk., for furnishing material and improving Lawnview Ave. by constructing a 6-in. water main. The F. A. Pease Engineering Co., 931 Williamson Bldg., Cleveland, are Engrs.

WAVERLY, OHIO.—Bids will be received until Aug. 8 by E. P. P. Smith, Village Clk., for furnishing material and erecting complete, a water-tight reinforced concrete stand pipe in connection with the Waverly water-works. Bidders may submit their own plans and specifications.

AMHERST, OHIO.—We are officially advised that bids were received on July 25 for about 13 miles of 4- to 10-in. water mains. Contract has been awarded to the LIVERPOOL SAND & GRAVEL CO., of Liverpool, Ohio.

UTICA, OHIO.—S. S. Wyer, Consulting Engr., Harrison Bldg., Columbus, has been retained by the village to furnish plans and specifications for a new water-works system. Bids are asked until Aug. 12. Plans and specifications may be secured from J. W. McKelvey, Clerk, Utica, Ohio. The plant will consist essentially of a 300,000-gallon reinforced concrete reservoir; two drilled wells; two deep well pumps; two brick, stone and concrete pump houses; c. i. mains, 30 hydrants, 12 6-in. valves, five 4-in. valves, 1,000 ft. of 2½-in. fire-hose.

COLUMBUS, OHIO.—Bids will be received until Aug. 15, by H. S. Holton, Dir. Pub. Ser., for 1,000 tons of c. i. pipe and 90 tons of special castings for the Water-Works Department. The bids are to contain figures for the pipe and special castings to be delivered along the line of work and also f. o. b. cars.

IRON RIVER, MICH.—The citizens, on July 18, voted to issue $10,000 of bonds to enlarge the water-works.

MARQUETTE, MICH.—We are officially advised that the city proposes to extend the intake pipe. Estimated cost, $75,000. Chas. Cummings is City Engr.

FLORA, ILL.—The city is considering the construction of a water-works and sewer system. Estimated cost, $78,000. Bids will be asked about September. W. Griffen is City Clk.

STEGER, ILL.—EARL PIKENS, 664 Schuyler Ave., Kankakee, Ill., has been awarded contract for the laying of the water mains and other parts of the new water system here at about $30,000.

EAST ALTON, ILL.—The citizens have voted $7,500 for the construction of a water plant.

ROCKFORD, ILL.—J. W. Alvord, Engr., 140 Dearborn St., Chicago, Ill.; W. H. Morey, Engr., Peoria, Ill., and a third engineer, to be selected, will prepare a report for enlarging and improving the water-supply system of Rockford.

MONTICELLO, IOWA.—Bids were opened on July 15 for 7,732 ft. of 4-in. water mains, etc. Contract for the pipe has been awarded to the MASSILLON IRON WORKS, of Massillon, at $26.95 per ton and 2¾ cts. per lb. for special. Contract for laying pipe, etc., was awarded to M. H. MERRIDITH, of West Liberty, at 22½ cts. per ft.

EMPORIA, KAN.—The city is considering the installation of a pumping engine. Estimated cost, $15,000. Matthew Brown is City Engr.

COFFEYVILLE, KAN.—We are officially advised that the city is considering the construction of a ground water-supply system. Estimated cost, $25,000.

WASHBURN, N. DAK.—Contract for constructing water-works, bids opened on July 12, has been awarded to C. H. PORRITT, of Fargo, at $17,282.

FORT MEADE, S. DAK.—Bids were opened on July 20 by the Constructing Quartermaster, U. S. A., for constructing concrete dam, spillway, valve chambers, etc., in connection with water system at this post. The lowest bid was that of Bartlett & Kling, of Cedar Rapids, Iowa, as follows: Earth excavation. 45 cts. per cu. yd.; rock

excavation, $2 per cu. yd.; riprap, $2 per cu. yd.; 16-in. c.i. pipe with valves, $15 per lin. ft.; 12-in. c.-i. pipe with valves, $12.50 per lin. ft.; 4-in. vitrified pipe, 75 cts. per lin. ft., and concrete in place, $7.80 per cu. yd.; Total, $54,000. Other bids were: Bartlett & Co., Deadwod, S. Dak., $68,000; Grams & Schummer, Sturgis, $71,960.

*LOVELL, WYO.—Bids are asked by W. T. Lovell, Engr-in-Charge, until 1 p. m., Aug. 29, for the erection complete of one elevated wood or steel tank of 60,000 gallons capacity, and a 40-ft. steel substructure to support the tank.

MILES CITY, MONT.—Bids will be received by J. E. Farnum, City Clk., until Aug. 22, for furnishing material and constructing extensions and improvements to the water-works, electric lighting and sewer systems.

KANSAS CITY, MO.—The city has voted $1,000,000 of bonds for water-works.

RUSSELLVILLE, ARK.—The Russellville Water & Light Co., Pine Bluff, Ark., is considering the construction of a water plant. Estimated cost, $60,000.

GRAHAM, TEX.—A contract has been awarded the NEW YORK CONTINENTAL JEWELL FILTRATION CO., 15 Broad St., New York, for filters for the new purification works. John B. Haley, Consulting Engr., Ft. Worth.

HARLINGEN, TEX.—The city has voted $30,000 of bonds for water-works and street improvements.

ABILENE, TEX.—The city has voted $7,000 of bonds for improvements to the waterworks system.

DENVER, COLO.—The lowest bid recently submitted to the Colorado Valley Land Co. for the construction of Santa Maria reservoir was that of Beisel & Glenn, 502 Railroad Bldg., Denver.

*DENVER, COLO.—Bids will be received at the office of the U. S. Reclamation Service, Washington, D. C., until 2 p. m., Aug. 12, for furnishing approximately 5,224 ft. of 26-in. and 36-in. pipe for siphons in connection with the Uncompahgre irrigation project, Colo.

DURANGO, COLO.—The Florida-Mesa Irrigation Board has contracted with the PIONEER CONSTRUCTION CO. for the building of ditches and a reservoir to water 25,000 acres of land in Durango, Colo., and a bond issue of $1,000,000 is under consideration. Estimated cost, $750,000.

FORT GEORGE WRIGHT, WASH.—Bids are asked by Lieut. A. L. Snead, Constructing Q. M., U. S. A., until 11 a. m., Aug. 22, for sinking one 10-in. tubular well at this post.

SPOKANE, WASH.—C. S. Argo and H. T. March, of Spokane, are preparing to expend $80,000 to $100,000 on the north end of Hayden Lake for the purpose of supplying electricity and water to improve a tract of land.

MILAN, WASH.—For the purpose of furnishing water for the irrigation of about 1,000 acres of fruit and truck land along the Little Spokane River near Milan and supplying electricity for lighting and power throughout this section of the country, the Little Spokane Water Power Co. has been formed with a capitalization of $20,000. C. M. Delameter, Atty., is interested. A direct fall of 25 ft. in the Little Spokane River is included in that part of the stream controlled by the new power company, and it is at this point that the electric lighting and power plant is to be constructed. The water power will probably be increased later by harnessing additional falls further up the stream.

TACOMA, WASH.—The Council has passed an ordinance providing for the construction of water mains in Local Improvement District No. 552, pipe ranging in size from 6 to 14 ins., according to plans and specifications prepared by the Commissioner of Light and Water. Estimated cost, $67,147.

SUMNER, WASH.—McKIM & NEVINS, of Puyallup, Wash., have been awarded contract for building the new water system at the county farm near Sumner, at $3,678.

VALE, ORE.—Contract for the construction of the water and sewer system here has been let to the AMERICAN LIGHT & WATER CO., Kansas City, at $63,490. Work must be completed in four months.

MEDFORD, ORE.—The Rogue River Valley Canal Co., headed by Patrick Welch, of Spokane, has acquired the Fish Lake Water Co. and will irrigate 55,000 acres of land in the Rogue River Valley. Estimated cost, $2,000,000.

WESTON, ORE.—The town will improve its water system by extending the pipe line and constructing a concrete dam and reservoir on Pine Creek.

LOS ANGELES, CAL.—Improvements and extensions to the city's water system to cost about $450,000 are outlined by William Mulholland, Supt. W.-Wks., in his annual report, which he submitted on July 19. Among these improvements is contemplated the laying of a 30-in. main in Vermont Ave., from Wilshire to 16th St. This is to serve a portion of the newly annexed territory to the southwest and will cost about $40,000. A part of the big main along 16th St. will be laid at a cost of $80,000, and $60,000 will be expended in a larger main on Santa Fe Ave. The purchase of 2,500 tons of c.-i. pipe will require about $100,000, and the rest of the money is to be expended in the enlargement and repairing of reservoirs.

SAN BERNARDINO, CAL.—The HAUSER CONSTRUCTION CO., Central Bldg., Los Angeles, has secured contract for building of dams and dykes of concrete to control the flood waters of Cajon Creek, in Cajon Pass, about 12 miles from San Bernardino, for the Atchison, Topeka & Santa Fe Ry. Co. Estimated cost, $35,000.

MURRAY, UTAH.—The citizens on July 18 voted to issue $20,000 of bonds for the construction of a pipe line from Big Cottonwood to Murray.

COTTONWOOD, IDAHO.—The Cottonwood Water & Light Co. has awarded the contract to CHARLES NORLIN, of Lewiston for the installation of a pipe line system. Contract calls for laying about three miles of steel pipe.

WINNIPEG, MAN.—Bids are asked by the Chairman of the Board of Control, M. Peterson, Secy. Bd., until 11 a. m., Aug. 25, for the supply of machinery capable of boring or drilling holes in the limestone rock from the bottom or top of the city water-works wells which are 15 ft. in diameter and from 60 to 100 ft. deep. Specifications and forms of proposal together with conditions governing bids as prescribed by by-law, may be obtained at the office of the City Engineer.

BALSAS, MEX.—See item under Light and Power Plants.

ITALY.—See item under Foreign Contracts.

SEWERS.

(*Denotes that this work is advertised in Engineering News.)

BOSTON, MASS.—WILLIAM J. BARRY, it is reported, has secured contract for constructing Section 7 of the Stony Brook conduit, in West Roxbury, at $75,326.

PROVIDENCE, R. I.—Plans and estimates of the cost of extending the sewer system of the city to include that part of the East Side beyond the crest of the hill in the precipitation system of disposal of the waste matter, are under consideration by Walter F. Slade, Comr. Pub. Wks. The plan calls for the construction of a series of trunks which will handle the sewage from that part of the city, and will do away with discharging into the Seekonk River. At the present time the discharge into the Seekonk River is at India St., Gano St., Pitman River and Blackstone Park. The new system would close up all those places of discharge and would turn the sewage to the west and across the harbor.

NEW YORK, N. Y.—Bids are asked by Cyrus C. Miller, Pres. Boro. The Bronx, until 11 a. m., Aug. 11, for constructing sewers and appurtenances in Hoe Ave., between Boston Road and East 174th St.; in Vyse Ave., between Boston Road and East 173d St.; in Bryant Ave., between East 176th St. and East 173d St., and Longfellow Ave., between East 176th St. and East 173d St.; in Boone Ave., between East 176th St. and the summit south of East 172d St.; in East 173d St., between West Farms Road and Longfellow Ave., and in East 172d St., between West Farms Road and Longfellow Ave., and for constructing, receiving basins and appurtenances at the southeast corner of Morris Park Ave. and Wallace Ave.; northeast and southeast corners of Morris Park Ave. and Cruger Ave.; northwest corner of Morris Park Ave. and Amethyst St., and at the southeast corner of Morris Park Ave. and Fillmore St.

BROOKLYN, N. Y.—Bids are asked by Alfred E. Steers, Boro. Pres., until 11 a. m., Aug. 10, for constructing sewers and sewer basins in various streets.

FULTON, N. Y.—The Board of Public Works on July 18 awarded to SWIFT & HOOKWAY, of Syracuse, contract for construction of the laterals to the West Side sewer system at $16,353.

ROCHESTER, N. Y.—Bids will be received until Aug. 13 by Thomas J. Bridges, Chn. County Commissioners of Public Buildings, for constructing a sewage disposal plant, etc., and a group of buildings to be used for a tuberculosis hospital, which is to be erected on Monroe County farm, Henrietta and Westfalls Roads. Crandall & Strobel are Archs., Ellwanger & Barry Bldg.

*HUDSON FALLS, N. Y.—Bids for furnishing all the labor and materials and constructing an extension of the system of sewers at Hudson Falls, will be received by the Board of Sewer Commissioners until 7.30 p. m., Aug. 15, at the office of the Village Clerk. The work comprises about 2,400 ft. on Notre Dame St. and North St. The work must be finished on or before Oct. 25, 1910. Contractors are to examine the location before bidding. Plans and specifications may be seen on and after Aug. 1, at the Village Clerk's office. O. C. Richards is Engr.

NEWARK, N. J.—The lowest bid opened on July 11 by Committee on Roads of the Board of Chosen Freeholders for 1,050 ft. of 4-ft. reinforced-concrete sewer in South Orange Ave. westerly from Rahway River was that of Joseph Befono & Co., at $5.40 per ft. The same company submitted the lowest bid, at $3.98 per ft., for a 24-in. sewer on Springfield Ave. in Milburn. James T. Boylan was the lowest bidder for 1,300 ft. of 24-in. stoneware pipe sewer on Westville Ave., Caldwell, at $1.09 per ft.

ALLENTOWN, PA.—Bids, addressed to the Mayor will be received by Charles O. Hunsicker, at his office, 39 North 7th St. until 7 p. m., Aug. 9, for the construction of the following storm sewers: Storm sewer in Sumner Ave., from Eighth to Tenth Sts. about 1,335 lin. ft. of 7-ft. 3-in., by 8-ft. 4-in., reinforced concrete section. Storm sewer in Tenth St. from Linden to Turner Sts. about 540 lin. ft. of 24-in. pipe sewer. Storm sewer in Sixth St. from Hamilton to Linden Sts. about 300 lin. ft. 18-in. pipe sewer. Storm sewer in Lehigh St. from Little Lehigh Creek to Auburn St., about 740 lin. ft. from 33-in. to 40-in. by 60-in. concrete section. Storm sewer in Sixth St. from Cedar St. to Sumner Ave. about 1,170 lin. ft. 18-in. to 27-in. pipe sewer. Storm sewer, Fourth and Chew Sts. to Jute St. and the Jordan Creek, about 995 lin. ft. of 15-in. to 27-in. pipe sewer. Plans, specifications and blank forms may be had on application to Chas. D. Weirbach, City Engr., upon deposit of $5, which will be returned on submission or return of bids and plans.

MORGANZA, PA.—The Building Committee of the Pennsylvania Reform School, Morganza, will receive bids until noon, Aug. 10, for furnishing labor and material for the extension of the existing main sewer, and for the construction of a sewage purification plant to be located on land owned by the Reform School, in accordance with the plans and specifications on file in the office of W. F. Penn, Supt.

PHILADELPHIA, PA.—See item under Bridges.

CHAMBERSBURG, PA.—See item under Water-Supply—Irrigation.

WOODLAWN, PA.—The citizens on July 20 voted to issue $100,000 of bonds for a sewer system, sewage disposal plant and grading of several streets.

MASONTOWN, PA.—The UNIONTOWN CONSTRUCTION CO., of Uniontown, has been awarded the sewage contract for Masontown, at $28,132.

HANCOCK, MD.—Bids will be received until Aug. 4, by Thomas Gillieace, Burgess, for the construction of the proposed sewer and water system here. Estimated cost, $40,000.

SUMTER, S. C.—The City Council has instructed the City Engineer to prepare plans for a new main line of sewers for the western half of the system.

ATHENS, ALA.—The city has issued $7,500 of bonds for sewer and water-works construction.

UNIONTOWN, ALA.—Prof. E. B. Kay, of the University of Alabama, Tuscaloosa is preparing plans for a sewer system here. Estimated cost, $10,000.

MINERVA, OHIO.—Bids were opened on July 18 by Austin H. Freed, Village Clk., for furnishing material and constructing a 2-ft. sewer from intersection of Line and Liberty Sts. to Clear Fork of Big Sandy Creek. Contract has been awarded to W. L. McGINTY, of Minerva.

KENTON, OHIO.—A resolution has been adopted by the City Council declaring it necessary to construct a sewer in East Lawn St. G. S. Binckley is Clk.

COLUMBUS, OHIO.—See item under Streets and Roads.

VINCENNES, IND.—The Board of Public Works has asked the City Council to appropriate $100,000 to construct a main trunk sewer, reducing plant and pumping station.

MARTINSVILLE, IND.—Bids are asked by George R. Scruggs, Trustee of Brown Township, until 2 p. m., Aug. 5, for the construction of one cement sewer and cement bridge on the Farmer Road, Brown Township, Morgan County.

ELKHART, IND.—The Board of Public Works on July 22 awarded contracts to the NORTHERN CONSTRUCTION CO. for the construction of the Elkhart Ave sewer, at $16,624.

LAPORTE, IND.—Bids are asked by the Common Council until 7.30 p. m., Aug. 8, for the construction of the Tyler St. sewer. William F. Krueger is City Clk.

DETROIT, MICH.—The city has awarded contract for the construction of a brick sewer in Dexter Boulevard, from Grand Boulevard to Columbus Ave., to WILLIAM PORATH, Rich St., Detroit, at $8,000.

PRINCETON, ILL.—W. S. Shields, of Chicago, has prepared plans for the construction of sewers here. Estimated cost, $33,600. J. M. Farrell is City Clk.

WEST DUNDEE (Dundee post-office), ILL. —E. K. Wilson, Sherwin Blk., Elgin, has prepared plans for a system of pipe sewers for West Dundee. Estimated cost, $12,000.

DANVILLE, ILL.—The Board of Local Improvements on July 20 decided to construct the sanitary sewer in northeast section of Danville.

FLORA, ILL.—See item under Water Supply-Irrigation.

STOUGHTON, WIS.—We are officially advised that the city is considering the construction of a sewer. Bids will be asked about September. Thomas Hurd, is City Engr.

CHIPPEWA FALLS, WIS.—We are officially advised that the city will construct 4,470 ft. of 8 to 18-in. vitrified pipe sewers, requiring 13 manholes, two lamp holes and eight catchbasins. Estimated cost, $6,050. Bids are asked until 4 p. m., Aug. 8. L. G. Arnold is City Engr.

TAMA, IOWA.—Bids were opened on July 18 by the city for the construction of 4,420 ft. of 18-in., 1,680 ft. of 12-in., 1,320 ft. of 10-in., 14,230 ft. of 8-in. sewer, sewage pumping plant, nine flush tanks, 35 manholes, etc. Contract has been awarded to DEARBORN & JACKSON, of Cedar Rapids, at $29,996. Other bidders were: Des Moines Bridge & Iron Works, $39,913; Independent Construction Co., Davenport, $36,591; Lytle Construction Co., Sioux City, $35,828; Cook Construction Co., Des Moines, $35,598; Thomas Carey & Son, $35,434; Cedar Rapids Construction Co., $33,888; Frazee & Danforth, Rochester, Minn., $33,621; J. W. Turner Improvement Co., Des Moines, $32,646; M. A. Camery & Co., Harlan, $30,756.

FORT MADISON, IOWA.—Bids will be received until Aug. 20 by L. G. Kiel, City Clk., for constructing about 10,000 lin. ft. of sanitary sewer. Estimated cost, $8,000. M. E. Bannon is City Engr.

NEWTON, IOWA.—The city has awarded contract for the construction of 25,000 ft. of sewers to the MARTIN CONROY CO., of Des Moines at 96.4 cts. per lin. ft. for sewer pipe, $1.60 for 18-in. iron pipe, and $9 per cu. yd. for concrete work where required. The contract calls for 23,400 ft. of 8-in. and 1,600 ft. of 10-in. pipe.

DUBUQUE, IOWA.—The contract for constructing a concrete covering for the Bee Branch sewer between 16th and 17th Sts., has been awarded to C. W. NOBLE & CO., at $21 per lin. ft.

GARNETT, KAN.—We are officially advised that bids will be asked by the city in two or three weeks for the construction of a portion of the sewer system to cost $65,000. L. D. Pilkington is City Clk.

CANTON, S. DAK.—Bids are asked by the City Commissioners until 8 p. m., Aug. 16, for the construction of a sewer. George Hokenstad is City Audr.

GLASGOW, MONT.—Bids were opened on July 13 for the construction of a sewer system. Contract has been awarded to GEORGE W. KEMPER, of Minot, at the following prices: 360 ft. 10-in. pipe sewer, $1.40; 1,970 ft. 12-in., $1.85; 1,952 ft. 15-in., $2.50; 777 ft. 18-in., $3.10; 1,105 ft. 20-in., $3.55; 550 ft. 27-in., $5.85; 18 5-ft. manholes, each $65; 27 catch basins, each $..; one flush tank, $175; one concrete outfall, $300. Total, $22,247. Other bids were: Gilbert W. Haggart, Fargo, $22,913; Tanner Bros., Minneapolis, Minn., $24,869; James Kennedy, Fargo, $22,820; W. D. Lovell, Minneapolis, $22,601.

MILES CITY, MONT.—See item under Water Supply—Irrigation.

KANSAS CITY, MO.—The city has voted $300,000 for the construction of sewers.

AMARILLO, TEX.—The city has awarded contract at $42,549 to MATTHEWS CONSTRUCTION CO., of Kansas City, Mo., for the construction of the extension to the sewer system.

McKINNEY, TEX.—The city contemplates the construction of additions to its sewer system.

CAMERON, TEX.—The city has voted $15,000 of bonds for the construction of a sewer system.

KENNEWICK, WASH.—Plans have been prepared for the construction of a sewer system here. Estimated cost, $[illegible].

CENTRALIA, WASH.—Bids for the construction of extensions to Sewer District No. 10 were opened on July 12. Only two bids were received and were rejected. The F. A. Keasal Construction Co. offered to do the work for $14,450. The bid of Bertelson & Gurnsey was $13,900. Estimated cost of the work, $14,500.

VALE, ORE.—See item under Water Supply—Irrigation.

ROSEBURG, ORE.—The City Council has adopted a resolution providing for the construction of a sewer system for that part of the city lying north of Deer Creek, to be known as the North Roseburg Sewer System. Estimated cost, $19,722.

KLAMATH FALLS, ORE.—The City Council has voted in favor of issuing $5,000 of sewer bonds.

LOS ANGELES, CAL.—The City Council has passed ordinances providing for sewers to be constructed in San Pedro St., from First to Jackson Sts., and in San Pedro St. from Jackson to Commercial Sts. H. J. Lelande is City Clk.

COVINA, CAL.—The Covina Board of City Trustees received estimates from City Engineer on July 19 on the proposed sewer system to be installed within the present city limits. The trustes will call a bond election in October. It is understood that the system will cost about $50,000.

ESTEVAN, SASK.—See item under Light and Power Plants.

GARBAGE DISPOSAL.

(*Denotes that this work is advertised in Engineering News.)

ERIE, PA.—Charles Carroll Brown, of Indianapolis, Ind., will prepare plans it is reported, for an incinerating plant. F. Hanlon, is City Clk.

ATLANTA, GA.—The Board of Health and Bond Commission have selected a site in the Ninth Ward for a garbage crematory and contract for construction will soon be awarded.

NASHVILLE, TENN.—H. E. House, Mayor, in a message to the City Council has recommended the construction of an incinerator. Estimated cost, $100,000.

KANSAS CITY, MO.—The citizens have voted to issue $100,000 of bonds for the installation of an incinerating plant.

SEATTLE, WASH.—The City Council has authorized the Board of Public Works to construct two incinerators, one in Block 5, Burke's addition and the other in Block 230, Seattle tide lands.

SAN FRANCISCO, CAL.—We are officially advised that contracts probably will be let soon for two incinerating plants (Contract No. 1, Garbage Disposal System), for the city of San Francisco. Marsden Manson is City Engr.; Hering & Fuller, 170 Broadway, New York, are consult Engrs. Specifications and map are on file at the office of Engineering News, New York.

STREETS AND ROADS.

(*Denotes that this work is advertised in Engineering News.)

KITTERY, ME.—Gill & Co., of Boston, Mass., have submitted the lowest bid to the Board of Selectmen for macadamizing 8,000 ft. of macadmized roadway in Kittery, at $16,800.

WINTHROP, ME.—Bids for building a section of state road about 950 ft. in length in the town of Winthrop will be received by the Selectmen of Winthrop until Aug. 5.

CONCORD, N. H.—Bids are asked until 1 p. m., Aug. 12, by H. C. Hill, State Engr., for gravel road in the town of Lyme. Estimated cost, $20,000.

WHITINSVILLE, MASS.—The FLYNT GRANITE CO., of Monson, has been awarded contract for constructing the macadam road from Forest to Border Sts., a distance of 3,600 ft., at $7,000. The other builders were the Worcester Broken Stone Co. and W. E. Horne, of Millbury.

HARTFORD, CONN.—Bids will be asked for soon by the State Highway Commissioner for the following state road work: Town of Bridgewater, 11,835 lin. ft. graded road, 14 ft. wide, including one 12-in., nine 15-in., four 18-in., one 20-in., six 24-in. and three 30-in. tile culverts.

Town of Bristol, 2,250 lin. ft. macadam road, including one 15-in. tile culvert; town of Durham, 18,237 lin. ft. macadam road on the Middletown Turnpike, including three

12-in., three 18-in., two 15-in., one 20-in., two 24-in. and one 30-in. tile culverts.

Town of North Branford, 15,327 lin. ft. macadam road on the Middletown Turnpike, including six 12-in., two 18-in., one 24-in. and one 15-in. tile culverts and one reinforced-concrete arch culvert.

Town of Sherman, 6,785 lin. ft. graded road, including three 18-in., twelve 24-in., one 15-in. and two 20-in. tile culverts; town of North Haven, three sections of macadam road aggregating 2,208 lin. ft.; town of Bloomfield, 2,474 lin. ft. macadam road.

Town of East Haven, two sections of macadam road, aggregating 10,788 lin. ft.; town of Beacon Falls, 2,325 lin. ft. gravel road, including three 15-in. and one 18-in. tile culverts; town of Simsbury, 1,562 lin. ft. macadam road.

Plans for proposed state road work have been received by the State Highway Commissioner as follows. From J. E. McElroy, Engr., 6,000 lin. ft. on Riverside Ave. in the town of Westport; from R. G. Pike, Jr., Engr., 5,500 lin. ft. on the Saybrook Road in the town of Saybrook, and 2,200 lin. ft. on the Portland-East Hampton Road in the town of Portland.

ALBANY, N. Y.—The bids received by the State Highway Commission on Aug. 1 for the repair of good roads were: (a) Residuum, (b) Bermudez.

Portville Village Road No 872, Cattaraugus County, length, .65 mile: Troy & Mack, Olean, N. Y., (a) $15,504, (b) $15,756; John E. Johnson, Buffalo, N. Y., (a) $16,713, (b) $16,913 (bids held).

Williamsville Village Road No. 5061, Erie County, 1.08 miles: Thomas Fitzgerald Co., Fredonia, N. Y., $36,850; Bush & Percival, Buffalo, N. Y., $34,990; Robert W. Henson, Geneva, N. Y., $35,794; F. A. Brotsch, Jr., Rochester, N. Y., $40,000; MULDERRY BROS., Albany, N. Y., $32,980 (awarded contract); H. P. Burgard Co., Buffalo, N. Y., $36,000; L. H. Gipp, Buffalo, N. Y., $35,000; Mosier & Summers, Buffalo, N. Y., $35,500.

Dolgeville Village Road No. 868, Herkimer County, 2.06 miles: (a) Residuum, (b) Bermudez—E. D. Baker, Binghamton, N. Y., (a) $39,442, (b) $40,250; Delaware Const. Co., Sidney, N. Y., (a) $39,600, (b) $41,000; Robert W. Henson, Geneva, N. Y., (a) $42,576, (b) $44,000; Dale Engineering Co., Utica, N. Y., (a) $39,794, (b) $40,445; James Anderson, Caledonia, N. Y., (a) $38,648, (b) $39,332; COOPER SNELL CO., Little Falls, N. Y., (a) $37,777, (b) $39,202 (awarded contract on Residuum for $37,777, subject to right-of-way).

Middleville Village Road No. 869, Herkimer County, .69 mile: (a) Residuum, (b) Bermudez—Dale Engineering Co., Utica, N. Y., (a) $8,425, (b) $8,637; James Anderson, Caledonia, N. Y., (a) $8,099, (b) $8,357; NEWPORT CONSTRUCTION CO., Newport, N. Y., (a) $7,100, (b) $7,600 (awarded contract for $7,100 on Residuum, subject to right-of-way).

Herkimer Village Road No. 870, Herkimer County, 1.99 miles: (a) Residuum-bithu, (b) Bermudez-bithu—Theodore C. Hailes, Jr., Albany, N. Y., (a) $55,670, (b) $56,740; H. P. Burgard Co., Buffalo, N. Y., (a) $48,738, (b) $49,379; WARREN BROS. CO., Boston, Mass., (a) $49,445, (b) $50,515 (awarded contract for $49,445 on Residuum-bithu).

Poland Village-Cold Brook Village Road No. 5069, Herkimer County, 2.04 miles: (a) Residuum, (b) Bermudez—Newport Const. Co., Newport, N. Y., (a) $21,900, (b) $23,200; James Anderson, Caledonia, N. Y., (a) $22,920, (b) $24,076; E. D. Baker, Binghamton, N. Y., (a) $22,584, (b) $23,600; DALE ENGINEERING CO., Utica, N. Y., (a) $19,949, (b) $20,741 (awarded contract for $20,741 on Bermudez, subject to right-of-way).

Dansville Village Road No. 867, Livingston County, 1.09 miles: (a) Residuum, (b) Bermudez—A. J. Rockwood, Rochester, N. Y., (a) $14,000, (b) $15,000; Niagara Const. Co., Corning, N. Y., (a) $12,800, (b) $13,250; F. L. Cohen, Buffalo, N. Y., (a) $13,497, (b) $14,400; E. D. Baker, Binghamton, N. Y., (a) $13,983, (b) $14,123; SCHROEDER-HICKS CONSTRUCTION CO., Rochester, N. Y., (a) $10,600, (b) $10,654 (awarded contract for $10,654 on Bermudez).

Clyde-Savannah Road No. 5070, Part 1, Wayne County, .62 mile: James Anderson, Caledonia, N. Y., $20,773; LAWLER BROS. CONSTRUCTION CO., New York, $18,477 (awarded contract); E. D. Baker, Binghamton, N. Y., $19,999; Henry Tosh, Port Byron, N. Y., $22,906.

Repair Contract No. 63, Road No. 89, Transit, Section 2, towns of Amherst and Clarence, Erie County: Bids withdrawn.

Repair Contract No. 66, Transit Road No. 88, Section 1, towns of Amherst and Clarence, Erie County: Bradley & Stahl, Corning, N. Y., $30,145. H. P. Burgard Co., Buffalo, N. Y., $30,000; Mosier & Summers, Buffalo, N. Y., $30,800; John Miller, Buffalo, N. Y., $31,586; F. L. COHEN, Buffalo, N. Y., $28,450 (awarded contract); Niagara Const. Co., Corning, N. Y., $29,140.

Repair Contract No. 87, Monroe Ave. Road No. 94, towns of Brighton and Pittsford, Monroe County: Julius Frederick Co., Rochester, N. Y., $17,200; Whitmore, Rauber & Vicinus, Rochester, N. Y., $15,934. (Bids rejected.)

Repair Contract No. 64, Big Tree Road No. 86, towns of Aurora and Wales, Erie County: Mosier & Summers, Buffalo, N. Y., $35,900; John E. Johnson, Buffalo, N. Y., $35,613; Bradley & Steele, Corning, N. Y., $35,965; F. A. Brotsch, Jr., Rochester, N. Y., $35,500; John Miller, Buffalo, N. Y., $37,245; James Anderson, Caledonia, N. Y., $35,496; H. P. Burgard, Buffalo, N. Y., $36,000; F. L. Cohen, Buffalo, N. Y., $36,200. (Bids held.)

Big Tree Road, County Highway No. 86-R, Erie County, length, four miles: James Anderson, Caledonia, N. Y., $97,384; Thomas Holohan, Rochester, N. Y., $84,750; Schroeder-Hicks Construction Co., Rochester, N. Y., $100,000; F. L. Cohen, Buffalo, N. Y., $94,900; H. P. Burgard Co., Buffalo, N. Y., $89,900; Mosier & Summers, Buffalo, N. Y., $93,000; F. A. Brotsch, Jr., Rochester, N. Y., $98,000; Thomas Fitzgerald Co., Fredonia, N. Y., $86,740; John E. Johnson, Buffalo, N. Y., $89,913; John Miller, Buffalo, N. Y., $99,968; L. H. Gipp Const. Co., Buffalo, N. Y., $92,500. (Bids held.) S. Percy Hooker is Chn. of Comn.; I. J. Morris is Secy., 53 Lancaster St., Albany.

NEW YORK, N. Y.—Bids are asked by the Department of Parks, until 3 p. m., Aug. 11, for regulating, grading and paving with asphalt pavement on a concrete foundation the roadway of west traffic road of Ocean Parkway, from 18th Ave. to Kings Highway, Boro. Brooklyn, together with all the work incidental thereto and for regulating, grading and paving with asphalt pavement on a concrete foundation the roadway of Parkside Ave., from Flatbush Ave. to Park Circle, Boro. Brooklyn, together with all the work incidental thereto.

Bids are asked by Cyrus C. Miller, Pres. Boro. Bronx, until 11 a. m., Aug. 9, for paving with asphalt blocks on a concrete foundation, repaving with redressed granite block pavement on a concrete foundation, the roadways of several streets; also for regulating and repaving with sheet asphalt paving on a concrete foundation the roadway of East 160th St, from Washington to Elton Aves., setting curb where necessary, etc.

NEW YORK, N. Y.—Bids are asked until 11 a. m., Aug. 11, by Cyrus C. Miller, Pres. Boro. The Bronx, for regulating, grading and paving various streets in the Borough of The Bronx.

Bids are asked until noon, Aug. 9, by Geo. Cromwell, Pres. Boro. Richmond, for regulating and repaving with bituminous concrete pavement on a concrete foundation, with wood block pavement in a sand bed; with asphalt block pavement on a concrete foundation; with Medina block pavement on a concrete foundation; with iron slag block pavement on a concrete foundation; with iron slag block pavement on a sand bed; with vitrified brick pavement on a concrete foundation; the roadways of various streets.

KINDERHOOK, N. Y.—We are officially advised that contract has been awarded to JAMES C. CONNERS of Schenectady, N. Y., by the village for building cement sidewalks here at 10½ cts. per sq. ft. William A. Roraback, is Village Clk.

*OLEAN, N. Y.—Bids will be received by the Commissioner of Public Works at the office of the City Engineer until 7.30 p. m., Aug. 15, for the construction of a vitrified brick pavement on concrete foundation in Green St. from the west line of Barry St. to the west line of Third St. The approximate amount of pavement to be laid is 4,000 sq. yds. and the curbing to be set is 3,000 ft.

FORT TOTTEN, N. Y.—Bids are asked by Capt. M. G. Spinks, Constructing Q. M., U. S. A., until 2 p. m., Aug. 16, for the construction of about 713 sq. ft. of concrete walk, 32 ft. of concrete steps, and 629 sq. yds. of macadam road at Fort Totten.

MONESSEN, PA.—Bids are asked by C. B. Parkinson, Boro. Engr., until 5 p. m., Aug. 18, for grading, curbing and paving Ninth St. from Schoonmaker Ave. to Knox Ave. The work consists of approximately the following: 2,200 lin. ft. of 6 x 24 stone curbing; 2,700 sq. yds. of vitrified repressed block paving; 100 lin. ft. of rough curbing.

PHILADELPHIA, PA.—The Councils on July 28 appropriated from the loan of $5,000,000, $199,000 for repairing paved streets; $40,000 for sprinkling macadam roads; $30,000 for repairing asphalted streets; $300,000 for the completion of the high pressure fire service in the north east mill district; $100,000 for the North East Boulevard; $25,000 for resurfacing country roads, $90,000 for the widening of the Chestnut St. bridge.

DORMONT, PA.—Bids will be received by the Borough Council, until 8 p. m., Aug. 5, for the improvement of Montpelier Ave. from Mattern Ave. to Philadelphia Ave. There are approximately 2,000 cu. yds. of grading, 1,880 lin. ft. of concrete curb and gutter, and 1,390 sq. yds. of brick paving.

WAYNESBURG, PA.—The Council on July 28 awarded contract for paving about 2,000 ft. of streets. The sections to be paved include Church St. between High and Green Sts.; 180 ft. on Lincoln St. and a portion of High St. extending from West St. to the west borough line known as the West Town hill. The contract for the work was awarded to FREDERICK ROBINSON, of Waynesburg at $13,000. Other bidders were Hallam Construction Co. of Washington, and Richard Ewart of Waynesburg.

SCRANTON, PA.—Bids will be received at the office of the Mayor by C. V. Terwilliger, Dir. Pub. Wks., until 11 a. m., Aug. 6, for paving the following streets with sheet asphalt on a concrete base; North Sumner Ave.; Jackson to Lafayette Sts.; North Bromley Ave.; Jackson to Lafayette Sts.; Plum Pl., Capouse to Monsey Aves.; Catlin Court and Alton Pl.; Lafayette St.; North Main to North Filmore Aves.; Sanderson Ave., Race St., Shawnee Ave., Depot St., and Pond Ave.

SCRANTON, PA.—Plans and specifications for the new road over the Pocono Mountains, to be constructed by the Scranton Automobile Association are being prepared by A. B. Dunning, C. E. It is expected to start the work within two weeks. The work of repairing the 20 miles of road will cost about $20,000.

ERIE, PA.—Contracts were awarded by the city on July 26 as follows: Contract for brick pavement on East Fourth St. German to Parade Sts., to JOHN McCORMICK & SON; contract for asphalt pavement on West 22d St., Peach to Chestnut Sts to WILLIAM SIMPSON.

TURTLE CREEK, PA.—Bids will be received by the Council of the Borough of Turtle Creek until 8 p. m., Aug. 5, for the grading, curbing and paving with vitrified brick, the portion of Monroeville Road lying between the line dividing Patton Township from the borough and the terminus of the present brick pavement of said street, at or near Boyd St.

*STEELTON, PA.—Bids will be received at the Council Chamber, until 7.30 p. m., Aug. 12, for replacing about 6,000 ft. of steel bound granolithic curbing on Front St. Specifications for the work can be seen at the Council Chamber. Charles P. Feidt, is Boro. Secy.

WILMINGTON, DEL.—Bids will be received until noon, Aug. 16, by the New Castle County State Highway Commission for building a macadam road in the County of New Castle, Lore Ave., distance of .393 miles; all or part of Lancaster Turnpike, between Red Clay Creek and Hocksessin, about four miles; Telegraph Road from Newark to Maryland State line, 1.6 miles; all or part of state road between Hare's Corner and Tybout Corner, about 3.69 miles; the road from Delaware City to St. George's, 2.557 miles. Plans can be seen after Aug. 5.

FORT HOWARD, MD.—Bids will be received by the Constructing Q. M., U. S. A., until 10.30 a. m., Aug. 15, for constructing macadam roads, macadam resurfacing roads, concrete walks and crosswalks.

BALTIMORE, MD.—Bids are asked by the Board of Awards, care of T. Sewell Thomas, City Register, until 11 a. m., Aug. 10, for all material and labor necessary for constructing a concrete footway along the east side of Auchentoroly Terrace from Fulton Ave., to Mandawinin Ave.

NORFOLK, VA.—Contract was awarded on July 22 by the Board of Control to U. S. SANDS for paving Pulaski and Charles Sts. with brick at 35 cts. per yd. and Elizabeth St. with Belgian block at 50 cts.

WINCHESTER, VA.—Bids are asked until 11 a. m., Aug. 8, by Capt H. L. Pettus, Constructing Q. M., U. S. A., Washington, D. C., for constructing concrete side-walks, etc., at Winchester National cemetery.

WILMINGTON, N. C.—We are officially advised that the Street Commission proposes to commence paving the streets sometime in October. As yet no special class of paving material has been selected. The Commission invites correspondence from the manufacturers of different kinds of paving material, giving information as to the different towns the paving is laid, the amount of paving laid in each place, and the cost per square yard.

The commission would also like to know where any of the different kinds of material is at present being laid. Louis S. Belden is Chn. C. R. Humphreys is Engr.

*BIRMINGHAM, ALA.—Bids will be received at the office of Maury Nicholson, City Engr., until 11 a. m., Aug. 17, for approximately 128,000 sq. yds. street paving. Bids will be received on brick, granitoid, bitulithic, asphalt and Kentucky rock asphalt. Specifications can be obtained from the City Engineer after Aug. 1. Advertised last week.

MEMPHIS, TENN.—The City Commissioners on July 21, decided to pave Madison Ave. from Cooper Ave. to Trezevant Ave., the city limits with asphalt. George C. Love is Comr. of Sts. and Bridges.

FREMONT, OHIO.—The Board of Control has awarded contract to GEORGE KINNEY for paving the streets, here.

AKRON, OHIO.—Bids are asked until 11 a. m., Aug. 11, by Summit County Commissioners for grading, draining and improving East Market Road. Charles L. Wirth is Clk.

OAKLEY, OHIO.—Bids will be received by Oscar Kosche, Village Clk., until noon, Aug. 9, for furnishing all the material and labor in and about the improvement of Ebersole Ave., from Dawson Ave. to Carpenter Ave., by grading and macadamizing the roadway, setting combined cement curb and gutters, constructing drains, etc.

STEUBENVILLE, OHIO.—Contract for paving West Market St. from Liberty St. to Steele Ave. was awarded to H. M. BATES, by the Board of Control, on July 26, at $19,958. Ligonier block will be used. There were four other bidders.

COLUMBIA, OHIO.—Resolutions have been adopted by the City Council declaring it necessary to improve Grove St. from Mosette Ave. to Cleveland Ave.; Gates St. from Mozart St. to Gates St.; Indianola Ave. from Lane Ave. to Maynard Ave.; Douty St. from Fifth St. to Sixth St.; also for the building sewers in the alley north of Jenkins Ave., in the alley north of Hinkle Ave., from Seventh St. to Eighth St.

McARTHUR, OHIO.—Bids were received on July 29 by James C. Wonders, State Highway Commissioner at the office of the County Commissioners as follows: JUNIPER & NIXON, Nelsonville, Ohio, $12,100 (awarded contract); Winchel & McDanniel, Columbus, Ohio, $12,150; J. F. Sater, Logan, Ohio, $12,177; F. H. Beckler, Athens, Ohio, $12,115.

NORWALK, OHIO.—Bids were received as follows on July 28 to James C. Wonders, State Highway Commissioner, at the office of the County Commissioners: JAMES QUINN, Norwalk, $12,700 (awarded contract); Denman, Sandwisch & Eisenhour, Sandusky, $12,868; Buckeye Engineering Co. Norwalk, $13,040; Callaghan & Parkinson, Bellevue, $13,120.

POMEROY, OHIO.—Bids were opened on July 19, for the improvement of the Pomeroy and Athens Road as follows; George Bauer, Pomeroy, sandstone curb, $10,775; Abner Juniper and Lewis H. Nixon, Nelsonville, $11,000. Contract was awarded to GEO. BAUER, by the State Highway Department upon the approval of the County Commissioners.

PAINESVILLE, OHIO.—Bids were opened on July 19, for the improvement of the Plank Road in Lake County, as follows: Buckeye Engineering Co., Norwalk, $6,075; Callaghan & Parkinson, Bellevue, $6,047. Contract was awarded to CALLAGHAN & PARKINSON by the State Highway Department with the approval of the Board of County Commissioners of Lake County.

BRYAN, OHIO.—Bids were opened on July 27 for the improvement of a road in Williams County. Contract was not let the bids being considered excessive. The work is under the supervision of the State Highway Commissioner.

ASHLAND, OHIO.—Bids were opened at the office of County Commissioners July 20 for the improvement of the Ashland and Loudenville Road as follows: D. A. PHILLIPS, Ashland, $11,728, for course limestone macadam and the same for top course lime stone and bottom course gravel. Contract was awarded for the top course limestone and the bottom course gravel, by J. C. Wonders, State Highway Coms. with the approval of the County Commissioners.

ATHENS, OHIO.—The City Council has passed a resolution declaring it necessary to improve Campbell Ave. from Morris Ave to Simpson Ave. and Simpson Ave. from Brown Ave. to the city limits and Maplewood Driveway from Shannon Ave. to Lloyd St.

DEFIANCE, OHIO.—Bids were opened on July 26 by the Board of County Commissioners for road improvement in Defiance County. The bids were considered excessive and no contract was awarded.

LOCKLAND, OHIO.—The Council on July 18 awarded contract to the M. G. ROTH CONSTRUCTION CO., for the improvement of Wyoming Ave. from Schwartz's corner to C. H. & D. R. R. with brick, at $9,489. Other bidders were: Thomas P. Strack, $10,567; Hinkel & Sullivan, $10,724; Daniel Trapp, $10,201.

TOLEDO, OHIO.—Bids will be received by the Lucas County Commissioners until 10 a. m., Aug. 22, for grading, draining and macadamizing a county road. Charles J. Sanzenbocker is County Audr.

Bids are asked by the Lucas County Commissioners until 10 a. m., Aug. 17, for grading draining and macadam the Point Place Road.

INDIANAPOLIS, IND.—The Board of Public Works will soon ask for bids for paving the roadway of Central Ave. with wooden blocks, asphalt, bituminous concrete or brick laid on a gravel concrete foundation from curb to curb.

The County Council has appropriated $30,000 for the repair of County gravel roads. The work will be let to contract.

NOBLESVILLE, IND.—The Commissioners of Hamilton and Marion Counties are planning to ask for bids for the construction of a gravel road on the line between Franklin township Hamilton County and Washington Township, Marion County.

ANDERSON, IND.—The Commissioners of Madison County will receive bids until 10 a. m., Aug. 16, for the construction of a gravel road in Jackson Township. Length of road 16,611 ft.; a gravel road in Fall Creek Township 4,224 ft. in length; a gravel road in Monroe Township, length of road 7,693 ft. and a gravel road in Richland Township, length 10,676 ft. William T. Richards, is Audr.

MUNCIE, IND.—B. F. Deardorf, City Engr., has filed his estimate with the Board of Public Works on the proposed improvement of East Wysor St., from Walnut St. to the Whitely bridge. The estimate of the total cost of paving the entire roadway with brick is given as $23,940, while with macadam it is given as $15,186. The board has accepted the estimate of the cost and assessments, and a resolution was adopted giving consent to the commissioners to go ahead with the improvement, and the city by assessment against the abutting property, will pay the extra cost of the improvement above the average cost of road improvements in the township outside the city. As is shown by the engineer's estimate, this cost will be a little over $8,500.

DETROIT, MICH.—The Common Council on July 19, ordered the following streets paved: St. Paul Ave. to Kercheval Ave., Charles St. from Greenwood Ave. to Gibson St., Howard St. from 24th St. to Boulevard; Willis Ave. from Brush St. to Hastings St. Ferry Ave. from Cass Ave. to Third St., and the paving of several alleys.

The Common Council has directed the Department of Public Works, J. J. Haarar, Coms., 104 City Hall, to advertise for bids for paving Hamilton Boulevard with cedar blocks on concrete foundation, with Medina, Beream or other approved curbing. Estimated cost, $8,112.

PEORIA, ILL.—Four bids for the resurfacing of North Madison Ave. with asphalt from Hamilton St. to Cornhill St. were received by the Board of Local Improvements on July 25. The lowest was that of Joseph Hanreddy of Chicago, at $32,824. Other bidders were: J. W. Bushnell, Peoria, $33,494; George A. Peter, Sycamore, Ill., $33,598 and John A. McGarry & Co., Chicago, $36,355.

CHICAGO, ILL.—Bids were opened on July 26 by the Board of Local Improvements for paving Johnston Ave. with asphalt from North California Ave. to North Kedzie Boulevard. The American Asphalt Co., bid, the lowest received, was $18,135.

Bids were also opened for paving Elston Ave. with granite blocks between West Division St. and West North Ave. The Parker-Washington Co. submitted the lowest bid, at $28,839, and the John A. McGarry Co. submitted the lowest for paving West Twelfth St. with brick between Talman Ave. and South 40th Ave.

DECATUR, ILL.—The Board of Local Improvements on July 20 awarded contract for paving East Main St. to J. E. BRETZ, the lowest bidder at $1.46 per sq. yd.

RACINE, WIS.—We are officially advised that the WHITE CONSTRUCTION CO., of Milwaukee, Wis., has been awarded the contract by the Board of Public Works for paving Park Ave. from Sixth to 14th Sts., requiring 75,200 sq. yds. of asphalt pavement, and 7,746 lin. ft. combined curb and gutter at $1.99 per sq. yd.; 39 cts. for cement gutter; and 40 cts. for resetting curb. P. H. Connolly is Chn.

CENTERVILLE, IA.—We are officially advised that McGUIRE & STANTON, of Leavenworth, Kan., were awarded contract on July 25 for brick paving here, at $2.12 per sq. yd.; and 70 cts. per lin. ft. for combined curb and gutter. Hall & Adams are Engrs., Centerville.

ST. PAUL, MINN.—The Board of Public Works, R. L. Gorman, Clk., has received the following bids for paving Dayton Ave. from Summit Ave. to Avon St. with creosoted blocks: Alexander W. Van Haffton, 515 N. Y. Life Bldg., Minneapolis, $46,096; Fielding & Shepley, $52,734; O'Neil & Preston, $58,000; P. J. Ryan, $53,480; Thornton Bros. $53,984; Kettle River Co., $58,765. The General Contracting Co., Minneapolis (asphalt paving), $41,539. L. W. Rundlett, is City Engr.

BEMIDJI, MINN.—The city will pave Third St. with cement pavement from Minnesota to Bemidji Aves.

OMAHA, NEB.—Bids are asked until 2 p. m., Aug. 8, by the Mayor and City Council at the office of the City Engineer, for grading a portion of Camden Ave.

Bids are asked until 8 p. m., Aug. 16, for paving and curbing and repaving and curbing various streets and alleys. Dan B. Butler, is City Clk.

SHERIDAN, WYO.—JAMES KENNEDY of Fargo, N. Dak., was awarded contract on July 20 by the city for paving Main St. and other streets with creasoted blocks. Estimated cost, $500,000.

PINE BLUFF, ARK.—The CAPITOL CITY CONCRETE CO. has been awarded contract for the construction of concrete sidewalks here at about $20,000.

DENVER, COLO.—Contracts for Alley Paving Districts No. 23 and No. 24 have been awarded to HEKERT & MULLER. District No. 23 includes the alleys between 17th and 20th Aves. and Washington and Downing Sts. and the work is to cost $12,965. District No. 24 includes the alleys lying between 16th and 17th Aves., Lafayette and Franklin Sts., 17th and 18th Aves., Humboldt and Franklin Sts., and Colfax Ave. and 16th Ave., and the work will cost $16,-995.

CONCRETE, WASH.—We are officially advised that ROY A. ROBSON has been awarded the contract by the city for laying sidewalks here at $4,150. C. N. Reitze is City Engr.

NORTH BEND, ORE.—The City Engineer will prepare plans and specifications for grading Sherman Ave. from the north side of California St. to the south side of Florida St. Estimated cost, $7,075.

PORTLAND, ORE.—The Council has passed resolutions providing for the improvement of a portion of the following streets. Paving with asphalt, Morris St., $7,958; Russell St., $7,936; Sacramento St., $6,727; San Rafael St., $6,739; East Ninth St., $17,899; East 24th St., $23,926; Union Ave., $15,-375; East Pine St., $3,795; East 16th St., $36,812, according to plans and specifications of City Engineer filed in the office of A. L. Barbour, Audr., of Portland.

PORTLAND, ORE.—Contract for the improvement of Kerbey St. between Prescott and Ainsworth Sts., has been let to the OREGON HASSAM PAVING CO., at $40,-664. Contract for East 27th St. and several crossings has been let to the WARREN CONSTRUCTION CO., $70,014. East Tenth St. between Halsey and Thompson Sts., to the OREGON HASSAM PAVING CO., at $14,744. East Ninth St. between Thompson and Halsey Sts., to the OREGON HASSAM PAVING CO., $14,263.

BAKER CITY, ORE.—The Council has adopted a resolution providing for the improvement of portions of Second St. by paving with Warren's bitulithic pavement according to plans and specifications prepared by the City Engineer filed in the office of J. Nichols, Audr. Estimated cost, $61,170.

SAN DIEGO, CAL.—The City Council has ordered the construction of cement sidewalks and curbs on Ivy St., North Ave., Albatross St., J. T. Butler, is City Clk.

OAKLAND, CAL.—Bids for the construction of a roadway on Kelly St. from a point 1,000 ft. northwesterly from intersection with Main County Road between Hayward and Dublin will be received by the Supervisors until Aug. 8. The work will require the excavation of 1940 cu. yds. of earth. Extra excavation is to be paid for at the rate of 60 cents per cu. yd.

LONG BEACH, CAL.—The City Council has ordered the grading and paving of Appleton St. and the construction of cement curbs and gutters; also same work on Molino Ave., and on Railway St.

RIVERSIDE, CAL.—The County Board of Supervisors has adopted a resolution to grade, macadamize and oil four miles of the Box Spring Grade Road. Estimated cost, $30,000.

BERKELEY, CAL.—The Regents of the University of California have awarded contract at $33,100 for building roads on the campus in accordance with the plans of the greater University, to the CONTRA COSTA CONSTRUCTION CO.

QUINCY, CAL.—The Board of Supervisors have let a contract for the construction of five miles of road from Mohawk Valley to the Plumas County line in the direction of Gold Lake, to E. M. GREEN, of Clio, at $4,995.

PIEDMONT, CAL.—The Board of Trustees has let the contract for grading, sewering and paving of Rose Ave., to the PIEDMONT CONSTRUCTION CO., at $5,656.

LOS ANGELES, CAL.—Property owners have been authorized to grade, gravel, oil, construct cement curbs, gutters, vitrified block gutters, and reinforced concrete culverts in 55th and 56th Sts. Marengo and State Sts. by private contract.

LOS ANGELES.—The following bids have been opened by the Board of Public Works for improving main St. from Seventh to Ninth Sts., Wilmington; P. A. Thomas, $2.60 per lin. ft. for grading and oiling; 45 cts. per lin. ft. for cement curb; W. E. Nichols, $3.45 for grading complete, J. Kirkpatrick, $3.90 for grading complete, J. O. Stanford, 3¾ cts. per sq ft. for grading and oiling.

For improving Mathews St., the bids follow: B. C. Nichols, $5.56 per lin. ft. for grading and graveling; 34 cts. per lin. ft. for cement curb; 16 cts. per sq. ft. for cement gutter. George R. Curtis, $5.25, 35 cts. and 16 cts. C. Hein, $5.25, 35 cts. for cobble gutter; 16 cts. for cement gutter and 30 cts. for vitrified block gutter.

For improving Morton Ave. bids were as follows: George R. Curtis, 15½ cts. per sq. ft. for macadam paving, $135 for grading intersection at Park Drive, 35 cts. per lin. ft. for cement curb, 16 cts. per sq. ft. for cement gutter, 35 cts: per sq. ft. for vitrified block gutter; $800, for curb and post railing complete; $315, for slope walls complete; $235, culverts complete Echo Park Ave; $450, culverts complete Avon St. T. E. Shafer, 15¼ cts. per sq. ft. for macadam paving; $135 for grading intersection at Park Drive complete; 35 cts. per lin. ft. for cement curb; 16 cts. per sq. ft. for cement gutter; 34 cts. per sq. ft. for vitrified block gutter; $768 curb and post railing complete; $370 slope walls complete; $429 culverts complete, Avon St; $279 culverts complete at Echo Park Ave.

ELKO, NEV.—Bids are asked by A. G. Dawley, County Clk., until 9 a. m., Aug. 15, for constructing three wagon roads and three bridges. Information regarding the work can be obtained from William Willis, Comr., Elko, Nev.

TORONTO, ONT.—Bids will be received by G. R. Geary, Mayor, and Chn. Bd. of Control, until Aug. 9, for the construction of various asphalt pavements, concrete, bitulithic and vitrified brick pavements, concrete curbs, walks and sewers for the summer season.

VANCOUVER, B. C.—PALMER BROS. & HENNING have been awarded contract for paving of Dunlevy Ave., from Harris to Hastings Sts., by the Board of Public Works at $22,613. T. R. NIXON & CO., were awarded contract for paving of roadway from Prince Edward to Scott Sts., at $49,000, and for paving Broadway from Ontario to Prince Edwards Sts. at $44,000. Other bidders were M. P. Cotten & Co., from Prince Edward to Ontario Sts., $57,480; Palmer Bros. & Henning from Prince Edward to Scott Sts., on Broadway, $53,612; Christian, Hartney & Christian, Prince Edward to Scott Sts. $51,-790.

MANUFACTURING PLANTS.

(*Denotes that this work is advertised in Engineering News.)*

PORTLAND, ME.—Plans are being prepared for a 3-story factory building to be occupied by the A. H. Berry Shoe Co. The building will be of brick and 150 × 50 ft. Construction will be started shortly.

NEW BEDFORD, MASS.—The Booth Mfg. Co. has been incorporated with a capital stock of $1,250,000 to build a fine goods mill in New Bedford. Plans are being drawn by Charles W. Prayar, this city. Construction work will start soon.

LOWELL, MASS.—The Boott Mills, Lowell, will erect a high pressure steam turbine station on the site now occupied by the boiler house of the plant. The present engine room will be rebuilt to accomodate new apparatus. The interior changes to be made will strengthen the walls, in order that they may carry trusses, cranes and new floors. The construction will be fireproof, of concrete and steel with the exception of the old walls, which will be allowed to stand in place. John A. Stevens is the Mechanical Engr.-in-Charge of the work. The estimated cost, according to the petition, is $15,000. The contracts for the work have not been awarded as yet.

BUFFALO, N. Y.—The Buffalo & Lake Erie Traction Co., Buffalo, has had plans prepared for an addition and alterations to its car house in Buffalo. The addition will be built of brick and will be 65 × 140 ft., and 18 ft. high. The estimated cost is $18,000. CONSTABLE BROS. have the contract.

PERTH AMBOY, N. J.—Lockwood, Greene & Co., Engrs., 93 Federal St., Boston, Mass., have awarded the contract for the construction of a storehouse and a loading shop for the U. S. Cartridge Co., of Perth Amboy, N. J., to the HENNEBIQUE CONSTRUCTION CO. The buildings are to be of reinforced concrete construction, two stories, 50 × 110 ft. Bids are now invited for the installation of two electric elevators.

WEST HOBOKEN, N. J.—The Public Service Railway Co. of Newark, N. J., has awarded a contract to the S. D. HYDE CO., New York, for building a car shed at Clinton Ave., Spring and Elm Sts., West Hoboken. The structure will be 200 × 220 ft. and will be constructed of steel, brick and wood. It will house 80 cars. The cost is estimated to be $75,000.

SCRANTON, PA.—Plans for a 7-story addition to the plant of the Lackawanna Cold Storage Co. at Wyoming Ave. near Pine St. have been prepared by Edward Langley, Arch., Connell Bldg., Scranton. Cost, $100,-000.

DU BOIS, PA.—The Du Bois Electric & Traction Co., Du Bois, will place contracts soon for building an addition to its car house and repair shop in Du Bois. Austin Blakeslee is Pres. and Gen. Mgr., Du Bois.

PHILADELPHIA, PA.—HARRISON C. REA, 3440 North Broad St., Philadelphia, will build a 2-story brick bakery, 50 × 98.1 ft. at Tenth and Reed Sts. for Kolb's Bakeries, 56th and Market Sts. The cost will be $15,000.

PHILADELPHIA, PA.—Herman Miller, Crozer Bldg., Philadelphia, is planning a 6-story manufacturing and store building to be erected at 633-635 Arch St., for Treacy, Morris & Co., 623 Market St., Philadelphia, at a cost of $60,000.

The contract for a 2-story factory, 50 × 139 ft., with wings, 50 × 55 ft. and 56 × 40 ft., to be built at Church and Tacony Sts., for F. P. Woll, has been let to ROBERT BEATTY & BRO. The building will cost about $25,000.

J. RICHARD JACKSON has the contract for a 4-story mill building, 34 × 84 ft., of brick, stone, concrete and steel, to be built on Frankford Ave. below Womrath St. for the Fire Association of Philadelphia, 407 Walnut St., at a cost of about $15,000.

The WILLIAM STEELE & SONS CO., 1600 Arch St., has secured the contract for a 7-story fireproof mill, 138.5 × 76 ft., at the northwest corner of Randolph and Jefferson Sts., for the Roxford Knitting Co. Cost, $150,000.

PHILADELPHIA, PA.—The Tabor Mfg. Co., 18th and Hamilton Sts., Philadelphia, has bought from Henry R. Scoch 5½ acres at the junction of the Port Richmond branch of the Philadelphia & Reading Ry. and the Chestnut Hill branch of the Pennsylvania R. R., and will erect thereon a $200,000 plant.

PORTAGE, PA.—Herman and Ernest Levy, 76-78 Greene St., New York, have purchased 200 × 160 ft., fronting on Farren St., upon which will be built a brick silk mill of fireproof construction, 125 × 54 ft., two stories, with engine and boiler house, 30 × 40 ft. Work will be completed in about six months.

WILMINGTON, DEL.—The Malleable Iron Co. of Wilmington will build an addition to its plant, to cost $10,000, it is stated.

PARKERSBURG, W. VA.—Plans are being prepared by Frank L. Packard, Arch., of Columbus, Ohio, for a $300,000 plant to be located at Parkersburg by the Baldwin Forging & Tool Co. The main building of the plant will be 860 × 60 ft., and the warehouse will be 200 × 60 ft. The machine shop will be 100 × 60 ft.; pickling room, 50 × 60 ft.; office building, 50 × 50 ft., and another warehouse 100 × 60 ft. The contract for part of the plant has been let to W. BATESON & SON, Reilly Bldg., Wheeling, W. Va., at $56,000.

SPARTANBURG, S. C.—Immediate preparations will be made for the erection of the Chesnee Mills, incorporated with a capital stock of $400,000. Joseph E. Sirrine of Greenville, S. C., the Engr.-Arch.-in-Charge, will have plans and specifications ready soon. It is stated that the equipment will comprise 20,000 spindles, 600 looms, etc., driven by steam power, and the production will be fine cotton lawns. Building contracts will probably be awarded at once, and the structures are to be completed within eight months. The company will build at Chesnee, S. C., and W. E. Burnett of Spartanburg, S. C., is Pres.

TOLEDO, OHIO.—The Woolson Spice Co. has secured from the Pennsylvania R. R. about 2¼ acres of land on Lower Summit St., between No. 12 engine house and the Pennsylvania tracks where the latter cross Summit St. On this property the company is to build a coffee roasting plant. Four reinforced concrete structures are to be erected—a main building, a warehouse, a power building and an office. It is estimated that the buildings will cost between $275,000 and $300,000. The main building of the big coffee roasting company will adjoin the engine house on Cleveland St. It will be 125 × 150 ft. and six stories high. The top floor will be used for coffee roasting and will be practically all glass, the sides being nearly all windows and there will be several skylights in the roof. The warehouse will be on Sandusky St. and the Pennsylvania tracks and is to be 125 × 200 ft. and two stories high. It will have a capacity for handling 50,000 bags of green coffee. The power plant will generate heat, light and power and will be located between the warehouse and the main building. The office will be three stories in height and is to be on Summit St. It will be 60 × 60 ft. The plant will have a capacity to roast, pack and ship 1,000,000 lbs. of coffee a week. The Directors of the company have named the following building committee to work out the plans for the new structures: Judge John H. Doyle, J. W. Koehrman, Gen. Mgr.; W. A. Brigham and F. H. Biggs, the Supt. The main building will have a restaurant for employes and a number of other modern features. Work will be started on the buildings as soon as plans can be prepared. It is expected that the company will get into its new quarters in the fall of 1911.

COLUMBUS, OHIO.—The contract for the addition to the plant of the Seagrave Co. of South Columbus, has been awarded to FERDINAND BAUMANN.

GREENSBURG, IND.—The Bromwell Wire Co. is asking for bids for the construction of an addition 60 × 200 ft. to its plant. The building will be of brick.

BRAZIL, IND.—The Brazil Factory Promoting Club has signed a contract with the American Sewer Pipe Works Co., for the erection of a $100,000 factory as an addition to its present plant at Brazil.

RICHMOND, IND.—The Richmond Underwear Co. has received a building permit for the erection of its plant on North Tenth St. in this city. The cost of the structure, as stated in the permit, will be approximately $40,000.

SOUTH BEND, IND.—Plans have been completed for a $200,000 addition to the Oliver Chilled Plow Works. The contract for erecting the building has been awarded to E. E. BURNER & CO., of South Bend.

DETROIT, MICH.—Geo. V. Pottle, Detroit Gas Co. Bldg., has let the following contracts for the proposed automobile factory, three stories and basement, for the Detroit Carriage Co., A. H. Roehm, Secy., Clay St. and St. Aubin Ave.: Masonry, to GOODENOW & GINN, 465 Vinewood Ave.; carpentry, to WILLIAM F. BUSSE, 471 Helen Ave. The building is to cost $28,000.

R. C. Gies, Wayne County Savings Bank Bldg., has let the following contracts for a 3-story machine shop, 50 × 150 ft. for E. J. Kruce & Co., 243 Lafayette Ave.: Masonry: to F. H. GODDARD, Ford Bldg.; carpentry to A. HIRSCH & SONS, 748 Leland St.; steam heat and plumbing, to HARRIGAN & REID, 70 State St.; painting, to WILLIAM DIEDRICK, 680 Gratiot Ave. The building is to cost $25,000.

Albert Kahn and E. Wilby, Trussed Concrete Bldg., have let the following contracts for the plant of the Lozier Motor Co., H. A. Lozier, Pres., Ford Bldg., for buildings No. 1, 720 × 60 ft., and No. 2, 540 × 140 ft., to be of fireproof construction and to cost $100,000: General contract to A. BENTLEY & SONS CO., Toledo, Ohio; heating to DODSON & LARSEN, 12 Griswold St., Detroit.

Albert Kahn and E. Wilby, Trussed Concrete Bldg., Detroit, have let the following contracts for Dodge Bros. machine shop, 1,000 × 65 ft., four stories, brick and reinforced concrete; cost, $100,000: Masonry to BRYANT & DETWILER, Hammond Bldg.; carpentry, to MARTIN HINGLE; plumbing to J. H. KENNEDY, Jefferson Ave.

DETROIT, MICH.—Varney, Painter & Varney, Equity Bldg., are taking figures on a factory building, two stories, 60 × 320 ft., and a 1-story boiler houses, 20 × 30 ft., for the Sietz Automobile & Transmission Co., David Wellman, Secy., 22 Beecher St. Building is to be constructed of paving and stock brick, with Bedford stone trimmings, composition roof, galvanized iron cornice, structural iron, hardwood finish in office, maple and cement floors and electric fixtures. The building is to cost $20,000.

W. S. Joy & Co., Ferguson Bldg., will soon take figures on a laundry building, two stories and basement, 90 × 80 ft. The building is to be constructed of stock brick, Bedford stone, reinforced concrete, with composition roof, galvanized iron skylight, cornice, structural iron, hardwood finish in office, cement floor and electric fixtures. Cost, $20,000.

John Scott & Co., Ford Bldg., are preparing plans for a structural iron plant, 115 × 200 ft., for H. B. Lewis, 45-57 Joseph Campau St. The factory is to be of stock brick, steel, Bedford stone, with composition roof, metal skylight, structural iron and electric fixtures. Cost. $25,000.

Albert Kahn and E. Wilby, Trussed Concrete Bldg., have let the general contract for a 3-story and basement factory building for the Ford Motor Co., James Couzens, Secy., Piquette Ave. and Beaubier St., to the STERLING ENGINEERING & CONSTRUCTION CO., Caswell Block, Milwaukee, Wis. Cost $40,000.

Chittenden & Kotting, Ford Bldg., have let the following contracts for the 5-story store and factory building, 66 × 184 ft., for the Detroit Stove Works, E. G. Van Wie, Supt., 1320 Jefferson Ave.: Masonry, to L. SCHOLL & SON, 298 Twelfth St.; carpentry, to SCHMEID SISMAN CO., 391 Beaufait St.; composition roofing, to AMERICAN ROOFING CO., 634 Gratiot Ave.; steam heating, to J. J. DOYLE & CO., 51 Bales St.; plumbing, to J. W. PARTLAN, 50 Park Pl.; painting to BREDE & SCHROETER, 20 Adams Ave., West. Cost, $50,000.

CHICAGO, ILL.—The Sharpless Separator Co. of West Chester, Pa., has bought the lot at Washington and Jefferson Sts., Chicago, on which they will erect a $100,000 building.

RACINE, WIS.—Contracts have been awarded to LOUIS NELSON & CO., for masonry and to ANDREW KOPPEL for carpentry to construct a $100,000 factory at Racine for the Kelly-Racine Rubber Co.

ALGOMA, WIS.—The Ahnapee Veneer & Seating Co. of this city will erect a 2-story addition to its local plant. The building will consist of reinforced-concrete walls, floors and roof, steel window frames and wired windows. Dimensions are 48 × 160 ft. Wallace de Long is Arch. at Appleton.

DODGEVILLE, WIS.—Plans are being prepared by the New Stratman Vehicle Co. of this city to erect a new 2-story addition, 40 × 200 ft., to its plant.

MILWAUKEE, WIS.—Application for a building permit has been made by the International Harvester Co., Park St., Milwaukee, for the erection of a $400,000 foundry building at 19th Ave. and Park St. It will be four stories high and of fireproof construction, 247 × 781 ft. DAHLMAN CONSTRUCTION CO., Majestic Bldg., Milwaukee, has the general contract, and the MONRADO CONSTRUCTION CO. has the iron work contract. The Arnold Co., Archs.

WICHITA, KAN.—The Wichita Railroad & Light Co., Wichita, is planning the construction of a central repair shop and car house at Wichita.

ST. LOUIS, MO.—The Victor Automobile Co. of St. Louis has increased its capital and has financed a deal to erect a $100,000 factory at the southwest corner of Boyle Ave. and Papin St. Plans have been prepared and contracts will be let at once. The plant will give the company more than double the capacity at present. The factory will employ about 250 skilled mechanics, besides a number of testers, helpers, etc.

KANSAS CITY, MO.—The Missouri Pacific Ry. shops, to be built at a cost of $200,000 in the East Bottoms adjoining the roundhouse on the west, will be finished by Jan. 1. G. W. Smith is Supt. of Machinery, St. Louis, Mo.

TEMPLE, TEX.—The Willig Bros. Flour Mill Co. of Temple has decided to increase the capacity of its plant to 100 bbls. a day. The improvement will be made as soon as the machinery can be installed.

OKLAHOMA CITY, OKLA.—The Schwartzschild & Sulzberger Co. of Oklahoma City has taken out a charter for the purpose of erecting a $1,000,000 packing plant at Oklahoma City. The capital of the concern is $1,000,000 and its directors are Max J. Sulzberger, New York; German F. Sulzberger, Chicago, and W. Welhener, Oklahoma City.

LOS ANGELES, CAL.—The Brunswick-Balke-Collender Co., Fourth and San Pedro Sts., will erect a 3-story brick factory building at Fourth and Wall Sts. for the manufacture of billiard and pool tables, etc. The building will be 50 × 240 ft.

BAKERSFIELD, CAL.—The Valley Ice Co. of Fresno, Cal., will construct an ice plant here, it is stated.

LAS VEGAS, NEV.—Charles Morris, 1410 South Grand Ave., Los Angeles, Cal., and Robert Schaffer of Las Vegas, and associates are planning the erection of a brewery plant here.

MISCELLANEOUS CONTRACTS.

U. S. RECLAMATION SERVICE.—All news concerning canal and irrigation projects, etc., will be found under Water Supply—Irrigation.

DITCH.—Lebanon, Ind.—Bids will be received until Aug. 5 by the Board of County Commissioners for constructing Benton ditch. B. F. Heidrich is County Audr.

PLATE GLASS.—New York, N. Y.—Bids are asked by the Park Board until 3 p. m., Aug. 11, for furnishing and delivering polished plate glass for the American Museum of Natural History.

STEEL FENCE.—Albany, N. Y.—The Board of Contract and Supply on July 21 awarded contract for erecting a steel fence about the Bleecker reservoir to ROBERT F. T. WILKE, at $6,362.

*BREAKWATER.—Bar Harbor, Me.—Bids are asked by Col. George A. Zinn, Corps Engrs., U. S. A., 537 Congress St., Portland, Me., until noon, Sept. 2, for constructing a breakwater near Bar Harbor, Me.

*CANAL, ETC.—Sault Ste. Marie, Mich.—Bids will be received by Col. C. McD. Townsend, Corps Engrs., U. S. A., Jones Bldg., Detroit, Mich., until 3 p. m., Aug. 30, for canal construction, etc., at Sault Ste. Marie.

ROCK.—New Orleans, La.—Bids will be received until Aug. 8 by Capt. Robt. R. Ralston, Corps Engrs., U. S. A., 3338 St Charles Ave., New Orleans, for furnishing about 7,500 tons of rock for Albermarle Bend.

DRY DOCK.—Hawaii.—The U. S. Navy Dept., Washington, D. C., on July 11, awarded the SAN FRANCISCO BRIDGE CO., of San Francisco, Cal., the contract for constructing Pearl Harbor Dry Dock No. 1, at $2,304,000.

BOILERS.—Key West, Fla.—Bids will be received until Aug. 15 by the Board of Public Works for furnishing two standard Scotch stationary boilers and a condenser, delivered on the dock at Key West. W. R. Porter is Chn.

DITCH OUTFALLS.—Chicago, Ill.—Bids are asked by the Sanitary District of Chicago, until noon, Aug. 10, for constructing reinforced-concrete ditch outfalls on the North Shore Channel. Robert R. McCormick is Pres. Bd. of Trustees.

ROAD OIL.—New York, N. Y.—Bids are asked by the Park Board until 3 p. m., Aug. 11, for furnishing, delivering and distributing in place 20,000 gallons crude oil mixture having an asphaltic base (No. 1, 1910), for parks, Boro. of The Bronx.

QUAY WALL.—Oakland, Cal.—Bids will be received by the Board of Public Works for the construction of a quay wall in the estuary from Myrtle to Clay Sts., a distance of 2,000 ft. It will be 44 ft. deep, 22 ft. wide at base and 5 ft. at top, and will cost about $350,000.

FORTIFICATIONS.—San Pedro, Cal.—The U. S. Government has purchased a site here, consisting of 160 acres. The property will be used as a site for a fort to protect Los Angeles Harbor. The cost of the fortifications and buildings to be erected will amount to several million dollars.

DREDGING, RIPRAP.—New York, N. Y.—Bids are asked by Calvin Tompkins, Comr. Docks and Ferries, until noon, Aug. 8, for dredging about 200,000 cu. yds. on the North River, Boro. of Manhattan; also for furnishing, delivering and putting in place about 25,000 cu. yds. of riprap stone.

*REMOVAL OF WRECK. — Wilmington, Del.—Bids were received by Maj. R. R. Raymond, Corps Engrs., U. S. A., on July 25, for removal of wreck of steamship "Oakdene," lying sunk in Atlantic Ocean, off the coast of Virginia. The contract has been awarded to EUGENE BOEHM, of Atlantic City, N. J., at $3,342.

IRON POSTS.—Ottawa, Ont.—Bids will be received by P. G. Keyes, Secy., Department of the Interior, Ottawa, Ont., until Sept. 1, for furnishing iron posts for use on the survey of Dominion lands to be delivered as follows: At Winnipeg, Man., 15,000 posts; Prince Albert, Sask., 10,000 posts; Edmonton, Alta., 12,000 posts.

ROCK.—New Orleans, La.—Bids were received on July 22 by Maj. H. Burgess, Corps Engrs., U. S. A., 3338 St. Charles Ave., New Orleans, for furnishing about 10,000 tons of rock for Reid-Bedford, La. The contract has been awarded to JOHN RIESS, of New Orleans, La., on U. S. barges at Vicksburg, Miss., at $2.25 per ton.

*EXCAVATING, ETC.—Barre, Vt.—Bids are asked by the City Clerk until 7 p. m., Aug. 11, for the excavation of a river channel, building walls at the sides, riprapping the bottom, refilling the old river bed, building about 500 lin. ft. of culvert and doing other work incidental to moving the course of the river in Barre, Vt.

*BARGE CANAL.—Albany, N. Y.—F. C. Stevens, Supt. Public Works, has awarded Barge Conal Contract No. 62, providing for the construction of over 14 miles of canal in Orleans County, to I. M. LUDINGTON'S SONS, INC., of Rochester, N. Y., for $2,347,836. The engineer's estimate was $2,151,470. Frank M. Williams is State Engr.

DREDGING.—Philadelphia, Pa.—Bids will be received at the office of the Commissioners of Fairmount Park, City Hall, until noon, Aug. 5, for the dredging of the Schuylkill River within the boundaries of Fairmount Park. The Councils on July 28 appropriated $25,000 for this purpose. Jesse T. Vodges, Ch. Engr.

*DAMS, ETC.—Rock Island, Ill.—Bids are asked by Maj. Charles Keller, Corps Engrs., U. S. A., Rock Island, until 2 p. m., Sept. 1, for construction and repair of dams and shore protection between Clayton and Dubuque, Iowa, between Rock Island, Ill., and Burlington, Iowa; between Keokuk, Iowa, and Hannibal, Mo., and between Clarksville, Mo., and Illinois River.

*PIER, ETC.—Boston, Mass.—Bids will be received until 2 p. m., Sept. 2, by the Board of Harbor and Land Commissioners, State House, Boston, for building a stone pier on wharf to be known as Pier No. 6, South Boston, and extending Northern Ave. on the Commonwealth's Flats at South Boston. Frank W. Hodgdon is Ch. Engr. Plans and specifications are on file at the office of Engineering News, New York.

*DRAINAGE.—Atkinson, Ill.—Bids were received on July 23, by the Commissioners of Drainage, Union District No. 1, Towns of Atkinson and Alba, Henry County, for the construction of two small levees and a highway grade and the cleaning out of portions of the open ditches of the district. H. E. Reeves, Engr., Atkinson. The bids received were not satisfactory and the letting was postponed for three weeks.

LUMBER, SAND, ROAD OIL.—New York, N. Y.—Bids are asked by Cyrus C. Miller, Pres. Boro. of The Bronx, until 11 a. m., Aug. 11, for furnishing and delivering white pine lumber and long-leaf yellow pine flooring, etc., to the Corporation Yard, 181st St. and Park Ave.; furnishing and delivering paving sand to the Corporation Yard, 181st St. and Park Ave.; furnishing and delivering 100,000 gallons of asphalt road oil.

TERMINAL.—Mexico.—The Robbins-Ripley Co., Engrs. and contractors, 50 Church St., New York, have completed plans for a water terminal at Port Lobos, Mexico, for the Arizona, Mexico & Gulf of California R. R. The terminal consists of a pier 500 ft. long, which is to be partially shedded and so located that there will be sufficient depth of water for the largest ocean vessels, with an approach 2,500 ft. long leading in to the shore. It is expected that the construction work on the pier and approach will be started at once.

(Continued on page 58.)

CONTRACT PRICES.

*SEWERS.—Sandpoint, Idaho.—Bids were received July 11, for building sewers in Section No. 1 of District No. 1, from (A) A. BURNS, Spokane; (B) Spokane Construction Co., Spokane; (C) Mulligan & Jennings, Spokane. The itemized bids were as follows:

SEWERS, SAND POINT, IDAHO.

	A	B	C
875 lin. ft. 18-in. sewer, 12 to 14 ft. deep	$2.50	$3.06	$4.15
695 lin. ft. 18-in. sewer, 10 to 12 ft. deep	2.20	2.70	3.95
785 lin. ft. 18-in. sewer, 8 to 10 ft. deep	2.00	2.50	3.55
2,165 lin. ft. 18-in. sewer, under 8 ft. deep	1.50	2.45	3.10
790 lin. ft. 15-in. sewer, 12 to 14 ft. deep	1.95	2.69	3.85
1,000 lin. ft. 15-in. sewer, 10 to 12 ft. deep	1.85	2.50	3.55
370 lin. ft. 15-in. sewer, 8 to 10 ft. deep	1.65	2.40	3.10
1,667 lin. ft. 12-in. sewer, 12 to 14 ft. deep	1.62	2.27½	3.00
360 lin. ft. 12-in. sewer, 10 to 12 ft. deep	1.52	2.05	2.75
300 lin. ft. 12-in. sewer, 8 to 10 ft. deep	1.22	1.90	2.70
565 lin. ft. 10-in. sewer, 10 to 12 ft. deep	1.42	2.00	2.75
200 lin. ft. 10-in. sewer, 8 to 10 ft. deep	1.12	1.00	2.50
160 lin. ft. 8-in. sewer, 12 to 14 ft. deep	1.30	1.91	3.25
2,162 lin. ft. 8-in. sewer, 10 to 12 ft. deep	1.12	1.70	2.30
780 lin. ft. 8-in. sewer, 8 to 10 ft. deep	1.00	1.50	2.00
2,400 lin. ft. 8-in. sewer, under 8 ft. deep	.85	1.45	1.70
107 6-in. Y's for 8-in. pipe	.55	.40	1.30
36 6-in. Y's for 10-in. pipe	.72	.90	1.75
16 6-in. Y's for 12-in. pipe	.91	1.10	2.20
86 6-in. Y's for 15-in. pipe	1.45	1.50	3.20
86 6-in. Y's for 18-in. pipe	2.10	1.90	4.70
331 6-in. bends in place with stoppers	.70	.75	.90
5 Manholes, complete, 6 ft. or less	65.00	50.00	70.00
13 Manholes, complete, 8 to 10 ft	75.00	65.00	85.00
24 Manholes, complete, 10 to 15 ft	95.00	92.00	95.00
5,520 lin. ft. trough for supporting 18-in. sewer	.20	.36	1.05
1,166 lin. ft. trough for supporting 15-in. sewer	.20	.34	1.05
2,327 lin. ft. trough for supporting 12-in. sewer	.15	.31	.95
765 lin. ft. trough for supporting 10-in. sewer	.15	.22	.85
5,502 lin. ft. trough for supporting 8-in. sewer	.08	.20	.80
Screen-house, lump sum	1,000.00	860.00	1,030.00
800 lin. ft. reinforced concrete sewer	3.50	2.60	3.90
2,000 lin. ft. 10-in. wooden sewer	1.00	1.44	1.50
200 lin. ft. reinforced concrete weights, in place	5.00	3.50	4.25
600 lin. ft. trestle under reinforced concrete pipe	2.50	1.80	3.75
Total	$37,597	$48,483	$73,402

*WATER PIPE.—Washington, D. C.—Bids were received July 27 by the District Commissioners for c.-i. water pipe and c.-i. water pipe specials, from (A) Glamorgan Pipe & Foundry Co., Lynchburg, Va.; (B) U. S. Cast Iron Pipe & Foundry Co., 1421 Chestnut St., Philadelphia, Pa.; (C) Standard Cast Iron Pipe & Foundry Co., 112 N. Broad St., Philadelphia, Pa.; (D) Lynchburg Foundry Co., Lynchburg, Va.; (E) Camden Iron Works, 400 Chestnut St., Philadelphia, Pa.; (F) Weatherly Foundry & Machine Co., Weatherly, Carbon Co., Pa. The itemized bids were as follows:

WATER PIPE WASHINGTON, D. C.

	A	B	C	D	E	F
18 tons 3-in. c.-i. water pipe, shell 0.34-in. thick	$29.80	$26.30	$31.08	$29.95	$33.60	....
50 tons 4-in. c.-i. water pipe, shell 0.36-in. thick	25.85	26.30	26.08	26.40	28.50	....
102 tons 6-in. c.-i. water pipe, shell 0.42-in. thick	24.85	26.30	25.08	25.40	26.25	....
2,252 tons 8-in. c.-i. water pipe, shell 0.48-in. thick	24.85	26.30	25.08	25.40	26.25	....
1,753 tons 12-in. c.-i. water pipe, shell 0.57-in. thick	24.60	26.30	25.08	25.40	26.25	....
786 tons 20-in. c.-i. water pipe, shell 0.66-in. thick	24.60	26.30	25.08	25.20	25.50	....
100 tons c.-i. water pipe specials—						
(A) In accordance with plans and spec New England Water Works Assn.	....	....	48.00	....	58.24	$51.74
(B) In accordance with their own plans and specifications	....	54.90	....	52.75	56.00	....

WATER POWER DEVELOPMENT.—Sturgis, Mich.—Bids were received July 6 for a water power development from: (A) Garden-Callahan Co., (B) American Engineering & Construction Co., (C) Falkenau Electric Construction Co., (D) The Sand & Gravel Co., (E) Olsen Construction Co. The itemized bids were as follows:

CONTRACT NO. 1. POWER HOUSE, TAIL RACE AND APPURTENANCES.

	A	B	C	D	E
575 cu. yds. excavation other than hardpan within the building lines	....	$2.00	$1.04	$0.75	$0.50
1,000 cu. yds. excavation of hardpan within building lines	....	2.00	2.08	1.00	1.00
3,000 cu. yds. excavation other than hardp outside building lines	....	2.00	1.04	.75	.40
1,000 cu. yds. excavation of hardpan outside building lines	....	2.00	2.08	1.00	.90
Cofferdams, lump sum	....	1,500.00	3,810.00	1,200.00	850.00
100 sq. yds. stone paving	....	1.50	.31	.50	.25
Vitrified sewer pipe, lump sum	....	200.00	125.00	108.00	50.00
1,500 cu. yds. washing sand and gravel	....	.60	.35	.30	.30
75 cu. yds. gravel (under penstock floor)	....	2.00	1.39	1.25	.50
130 cu. yds. concrete, Class A	....	12.00	12.40	8.35	8.00
240 cu. yds. concrete, Class B	....	10.00	11.20	7.80	6.50
240 cu. yds. concrete, Class C	....	10.00	11.20	7.80	7.00
500 cu. yds. concrete, Class D	....	9.00	8.50	6.90	5.50
7 cu. yds. concrete, Class E	....	15.00	12.30	8.35	10.00
6 M. brick masonry in forms	....	50.00	46.00	48.00	30.00
Brick masonry walls, lump sum	....	2,000.00	3,100.00	2,868.00	1,650.00
16 tons reinforcing steel	....	70.00	100.00	87.00	55.00
37 tons hauling and placing structural steel, miscellaneous steel work & castings	....	22.00	26.40	15.00	22.00
70 tons hauling & placing hand traveling crane, hyd. & elec. mchy. & appurtenances	....	15.00	37.40	20.00	27.00
Plumbing and pipe fitting, lump sum	....	500.00	505.00	378.00	350.00
Pipe railing, lump sum	....	75.00	85.00	122.00	150.00
Carpenter and mill work, lump sum	....	850.00	790.00	550.00	750.00
Painting and glazing, lump sum	....	600.00	775.00	840.00	475.00
Roofing, lump sum	....	150.00	195.00	204.00	150.00
Asphalt, finish floors, lump sum	....	300.50	760.00	470.00	130.00
300 lin. ft. foundation piles	....	.50	.72	.60	.50
500 sq. ft. steel sheet piling, driving only	....	.10	1.80	.35	.30
500 sq. ft. wood sheet piling, driving only	....	.70	.42	.77	.45
Total estimate	.....	$33,304	$36,804	$24,728	$19,844
Time required		210 days	180 days	147 w. days	180 days

CONTRACT NO. 2. CONSTRUCTION OF SPILLWAY AND EMBANKMENT.

	A	B	C	D	E
3,900 cu. yds. excavation above elevation 802.0	$0.55	$0.50	$1.04	$0.63	$0.50
770 cu. yds. excavation below elevation 802.0	1.00	1.00	2.08	1.00	1.00
800 lin. ft. tile drains laid	.13	.40	.173	.24	.10
16,000 cu. yds. rolled embankment	.50	1.30	.485	.46	.30
8,000 cu. yds. closing embankment	.55	1.50	.485	.65	.40
Cofferdams, lump sum	15,875.00	7,000.00	1,950.00	3,050.00	1,500.00
Taking care of water, lump sum	2,600.00	1,500.00	1,830.00	2,500.00	.....
500 cu. yds. concrete, Class A	13.56	10.00	15.00	7.75	8.00
820 cu. yds. concrete, Class B	10.35	10.00	10.10	7.50	6.50
600 cu. yds. concrete, Class C	5.71	8.00	7.00	6.60	6.50
23 tons reinforcing steel	65.00	70.00	103.00	87.00	55.00
Framing and carpenter work, lump sum	770.00	1,700.00	1,525.00	512.00	325.00
1,250 sq. yds. rubble paving	.25	.60	.32	.40	.25
2,500 cu. yds. boulder fill	.68	1.00	1.39	.75	.65
2,600 cu. yds. washing sand and gravel	.20	.60	.35	.30	.30
500 lin. ft. foundation piles	.60	.50	.72	.60	.50
1,500 sq. ft. steel sheet piling, driving only	1.50	.10	1.80	.35	.30
1,500 sq. ft. wooden sheet piling, driving only	1.00	.80	.42	.77	.45
Total estimate	$61,435	$72,060	$53,567	$43,162	$31,212
Time required	200 days	210 days	180 days	147 w. days	180 days
Estimate on Contract No. 1	.....	$33,304	$36,804	$24,728	$19,844
Estimate on Contract No. 2	$61,434	$72,060	$53,567	$43,162	$31,212
Combined total estimate	.....	$105,364	$90,371	$67,900	$51,056
Reduction offered for both contracts	.....	4,000	.....	1,200	.....
Ultimate estimate	.....	$101,364	$90,371	$66,690	$51,056

MISCELLANEOUS CONTRACTS.

(Continued from page 57.)

CONCRETE TRENCH.—Washington, D. C.—Bids are asked by Frank Pierce, Acting Secy., Dept. of the Interior, Washington, D. C., until 2 p. m., Aug. 8, for the construction of a concrete trench from the intersection of the tunnel connecting the old Post Office and Patent Office buildings to the Pension Office building, to be used in connection with the extension of the heating system to the last-named building.

LEVEE.—New Orleans, La.—Bids will be received until Aug. 15 by Maj. H. Burgess, Corps Engrs., U. S. A., 3338 St. Charles Ave., New Orleans, for constructing about 257,000 cu. yds. of earthwork in the Atchafalaga Levee District.

Bids will be received until Aug. 9 by Capt. Robt. R. Ralston, Corps Engrs., U. S. A., New Orleans, for constructing about 26,000 cu. yds. of earthwork in the Lake Borgne Levee District.

DITCH.—Chillicothe, Mo.—Bids were received on July 28 for constructing a dredge ditch with eight highway steel bridges, 40-ft. spans, 14 farm crossings and 16 water gates in Drainage Dist. No. 13. Total length of ditch, 51,800 lin. ft.; cu. yds., 208,766. Thomas Hurst is County Engr. and Surv.; A. M. Shelton, County Clerk. The contract has been let to R. H. & G. A. McWILLIAMS, 39 Jackson Boulevard, Chicago, Ill., at about $36,500.

REPAIR TO PIER.—Long Beach, Cal.—The MERCEREAU BRIDGE & CONSTRUCTION CO., Pacific Electric Bldg., Los Angeles, has been awarded contract by the Board of Public Works to repair the damage to the public pier, caused by recent high tides, at $14,000. The repairs are merely temporary and will consist of driving 400 piles to protect the damaged portion. The permanent improvement will not be undertaken until fall.

GRADE CROSSINGS.—Columbus, Ohio.—D. W. McGRATH, New First National Bank Bldg., Columbus, has taken over the contract for the completion of the work to eliminate the grade crossing over West Mound St. The contract originally was taken by the Yawger Construction Co., of Indianapolis, which went into the hands of a receiver almost a year ago and Mack Wardell took over the work. The American Bonding Co., bondsman for Mack Wardell, turned over the contract to Mr. McGrath when Wardell threw it up. He took the contract to complete the work at $48,000.

*DRAINAGE CANALS.—Osceola, Ark.—Bids were received until July 26 at the office of the County Court Clerk of Mississippi County, at Osceola, by Willis E. Ayres, Ch. Engr., for the construction of 75 miles of drainage canals, approximately 3,170,000 cu. yds. Willis E. Ayres is Consult. and Constr. Engr., Randolph Bldg., Memphis, Tenn. The contract for canal work in Drainage District No. 8, of Mississippi County, Ark., was awarded to KOCHTITZKY & CRUMPECKER, Cape Giradeau, Mo., for .0734 cts. per cu. yd. of excavation. Work is to be started in 30 days.

DRAIN.—Jacksonville, Ill.—Following are the bids received on July 20 by the Commissioners of Indian Creek Drainage District for drainage work from plans of C. W. Brown, of Jacksonville. The contract will call for the removal of (a) 149,199 cu. yds. of dirt and (b) building 7,507.6 cu. yds. levee work: N. C. McGinnis, Bement, ditch, (a) 8.27 cts. per cu. yd.; J. E. Rogers, Havana, (a) 9.75 cts.; R. F. & G. H. McWilliams, Chicago, ditch, (a) 9.9 cts.; R. A. Brown, Washington, Ind., (a) 10.95 cts.; M. J. O'Meara, Cullum, (a) and (b) 9.625 cts.; C. R. Lewis, Champaign (a) 9.625 cts., (b) 15 cts.; William Jones, Concord, Ill., (a) 13 cts.

DRY DOCK.—Norfolk, Va.—Bids for extension of Dry Dock No. 3, Navy Yard, Norfolk, Va., received at Bureau of Yards and Docks, Navy Dept., Washington, D. C., on July 20, as follows: (1) for keeping dock closed four months; (2) for keeping dock closed three months: The Foundation Co., 115 Broadway, New York City, (1) $710,000, (2) $740,000; S. Pearson & Son, Inc., 507 Fifth Ave., New York, (1) $644,700, (2) $674,700; James Stewart & Co., 30 Church St., New York, (1) $647,941; William L. Miller, 19 Milk St., Boston, Mass., (1) $553,784, (2) $554,784; Holbrook, Cabot & Rollins Corporation, 6 Beacon St., Boston, Mass., (1) $585,000, (2) $600,000; MacArthur Bros. Co., 11 Pine St., New York, (1) $589,500, (2) $619,500.

PIER, ETC.—Oceanpark, Cal.—A pier is to be built here for amusement purposes. Following are the details of the work. The total cost of which will approximate $1,000,000:

Pier.—Contains 280,000 sq. ft.; built of reinforced concrete and steel; extends out into ocean 1,000 ft.; contract let to D. A. CORBERLY & CO.; will be completed for opening June 1, 1911.

Features.—Scenic railroad, permanent exhibit of California's Chamber of Commerce, miniature electric scenic railroad, carousel, revolving cafe, dancing pavilion, vaudeville theater, light opera house and various novelty show theaters.

Revolving Cafe.—Built of steel and glass; 110 ft. in diameter; 65 ft. high; three stories and dome; 23 store rooms on first floor; second floor used for cafe; third floor and promenade used for summer garden; second and third floors revolve on top of first story and around 40 ft. core, which remains stationary; 40-ft. core used for cafe kitchen; band stand in dome; cost, when completed, $100,000.

Dancing Pavilion.—Floor space, 175 × 225 ft.; balcony will seat 5,000; oval shaped floor; pipe organ, electric bell and electric chimes; suspended platform over center of floor for orchestra; four lighthouse towers with revolving searchlights. Cost, $125,000. Eager & Eager, Laughlin Bldg., Los Angeles, Cal., are Archs of amusement buildings.

FOREIGN CONTRACTS.

(To insure prompt attention, letters on consular business should be addressed to The American Consul at ——, ——. Such letters are opened and attended to by whoever may be in charge of the office. If addressed to the consul, personally, letters are forwarded to him, unopened, should he be absent, and a delay thus intervenes. If, in the meantime, he should have gone out of office, the matter may wholly escape attention.)

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RAILWAY.—Holland.—It is probable that the project for the construction of a railway from Zwolle to Blokzijl will be carried out. Subsidies have now been promised by the State and by the most important communal districts which will be traversed by the line.

RAILWAY.—Argentina.—Decree has been granted to the Buenos Aires Great Southern Ry. with powers to construct a line of railway from Olavarria to Las Nutrias, 22 miles to the south of Balcarce. A decree has been granted authorizing the Argentine Central Railway to construct and work a section of railway from Chanar Station northwards for a distance of about ten miles.

RAILWAY.—Italy.—The Superior Council of Public Works has approved the plans and specifications drawn up by the Italian State Railways Administration for the construction of two sections of the Sciacca-Porto Empedocle railway, from Cattolica to Montallegro, and the first portion of the Sciacca to Bivio Sciacca section. The cost of the first section is estimated at about $220,000 and the second, $300,000.

BRIDGE, BUILDINGS. — Uruguay. — Two bills have been submitted to the Uruguayan Legislature, one authorizing the executive authorities to expend a sum of $200,000 for the construction of a bridge across the Queguay River in the Department of Paysandu, and the other bill authorizing a similar amount for the erection of post and telegraph buildings in the capitals of the Department of Paysandu, Salto, Colonia, Soriano and Canelones.

ELECTRIC RAILWAY.—Holland.—A concession has been granted by the communal authorities of Groenlo for the construction of a railway from Borculo to Winterswijk, and thence to the German frontier. The communal authorities of Nymegen have decided to take over, on behalf of the town, the working of the steam railways at present owned by a private company, and to substitute electric for steam traction at an estimated cost of over $400,000.

ELECTRIC RAILWAYS.—Australia.—It is proposed to construct electric railways as follows: (a) From Oyster Point to the north side of the Tully River, in Cardwell Shire, Queensland, by the Shire Council. The line would have a length of about 30 miles, and would cost $210,000, including bridging, $3,500; sleepers, $3,300; rails (30 lbs. per yard), $60,000, and rail fastenings, $8,000. (b) At Cairns, Queensland, by the Municipal Council: The line would be about eleven miles long, and would cost some $50,000. The figures given are approximate.

RAILWAY.—Dutch East Indies.—The Netherlands East Indies Railway Administration at Batavia, Java, is about concluding surveying operations for a railway to connect Buitenzorg with Serpong. The cost of the undertaking is estimated at $490,000.

The plans submitted by the Ministry of the colonies at The Hague, Holland, for the construction of a steam railway from Krian to Gempolkerep, in the Island of Java, have been approved. The work will include the building of a large bridge across the River Sourabaya.

WATER PIPE.—Italy.—The municipal authorities of Alghero invite bids for the construction of a water main in Alghero, and the supply of the necessary material. The price is put at about $150,000, and the competition will depend on the percentage of reduction therefrom which bidders may be willing to accept. In order to qualify any bid, a deposit of $3,000 will be required, to be increased by the successful bidder to 10% of the accepted price. Bids, which will be opened at 11 a. m. Sept. 5, should be addressed: "Al Signor Sindaco, Palazzo Comunale," Alghero.

EXAMINATIONS.

MECHANICAL DRAFTSMAN.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Aug. 24-25 to secure eligibles from which to make certification to fill a vacancy in the position of Draftsman, $1,000 a year, Patent Office, Dept. of the Interior, Washington, D. C., and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interest of the service to fill the vacancy by reinstatement, transfer, or promotion. Age limit, 18 years. Application form 1312.

ASSISTANT IN WIRELESS TELEPHONY.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Aug. 24 to secure eligibles from which to make certification to fill a vacancy in the position of Assistant in Wireless Telephony, Signal Service at Large, at $1,080 a year, and vacancies requiring similar qualifications as they may occur in any branch of the service, unless it shall be decided in the interest of the service to fill the vacancy by reinstatement, transfer, or promotion. The person appointed to the position for which this examination is held will probably be located for the major portion of his time in Washington, D. C., engaged upon the work of the development and adaptation of wireless telephony to the fixed and mobile stations of the Signal Corps. He may also be required to travel about the United States visiting wireless-telephone stations, which visits may be of a few days' or several months' duration. Age limit, 20 years. Application form 1312. Applications must be filed prior to closing hour on Aug. 13.

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CURRENT PRICES OF ENGINEERING MATERIALS

Supplement to ENGINEERING NEWS, appearing in the First Issue of Each Month. New York, August 4, 1910.

PRICE CHANGES AND THE BUSINESS OUTLOOK.

General business conditions are more favorable than they were a month ago. Contractors complain only of the shortage of labor, as far as present work is concerned. New jobs of magnitude are few, but there are many small pieces of work contemplated. In some branches of trade, particularly the iron and steel industry, the volume of business booked while not as large as during the previous month, is fair and, with the improvement in sentiment, better business is expected. Manufacturers of cement have advanced their quotations 10 cts. a bbl. in the East and in the West prices are firmer. No shortage is expected except in the Kansas and, perhaps, Oklahoma district. The price of crushed stone is higher and brick slightly easier.

Metals are moving more freely, the consumption being somewhat larger and slightly higher prices have been named. The production of copper, however, continues to increase faster than consumption.

The decline in pig iron has been arrested, temporarily at least, but there has been no important buying movement in the last month. A moderate reduction in the price of finished steel products brought little new business. Concessions of $3 a ton are reported on steel sheets. Wire products, also, are easier; structural steel shapes have again declined and plates are shaded another $1 a ton. Old material, particularly steel scrap, is moving in a very limited way and at lower prices.

The buying by the leading consumers, the railways of the country, is conspicuous by its absence. They are cutting down their orders, for all kinds of material, to the lowest possible figure. This is in spite of the fact that traffic is larger than a year ago, the number of idle cars smaller and the gross earnings considerably in excess of those at this period last year. With this rigid curtailment in the buying of supplies for maintenance requirements, the railways have been unable to make as satisfactory a showing of net earnings as they did last year. This, of course, is due to the higher cost of labor. The absence of the railway buying in the steel industry has been particularly marked. A few years ago such a curtailment would have been serious, but the proportion of steel used by the railways in comparison with that taken by general consumers has steadily declined.

The labor problem is a pressing one. A threatened strike of trainmen on the Pennsylvania Lines East was amicably settled, but there is a serious strike on a Canadian line. An Eastern railway is much troubled with the Maintenance-of-Way forces, resorting to private detectives to protect the workmen now employed. Quite a little violence has been observed in this strike. Street railway troubles crop out in different parts of the country, but none of them are at all serious. Construction laborers are particularly difficult to obtain.

The inability of some municipalities to dispose of their bonds at even a 5% basis is responsible for less municipal work being let. A severe collapse in security prices brought forth the announcement that another ambitious scheme for a transcontinental line had been nipped in the bud. The financial situation would be a great deal sounder if there were more demand for strictly investment securities. These are selling at a lower level than any time this year.

LABOR.

Skilled mechanics and common labor, willing to work, can secure the highest wages paid in recent years for their services. There is a dearth of common labor such as is employed on large construction work and that obtained is inefficient and expensive. Contractors carrying on large jobs must necessarily recruit their ranks almost weekly with new emigrants. The general wage received by the poorest European laborers, Greeks, Poles and Russians, is $1.60 per day. Italian labor can easily obtain $1.75.

Many contractors who have been unable to find the class of labor they needed are now paying $25 to $30 per month with board and lodging. They find this more satisfactory, as laborers they obtained are those anxious to secure steady places. While the cost to the contractor is in such cases larger than the regular rate of $1.60 or $1.75 per day, there is an advantage gained not only on account of the greater efficiency obtained, but a considerable saving in transportation charges.

Skilled labor is likewise in excellent demand. Machinists who are good all around hands can readily obtain 40 cts. per hr., but a number of employers are endeavoring to secure men at marked concessions from these figures.

Labor disturbances have been far more prevalent than at any time this year. The employees on the large railway systems, particularly the Pennsylvania, whose wages were raised early in the Spring, have made further demands and in this particular instance reached an amicable settlement. Other railways that increased the compensation of employees early in the year now face another readjustment. These for the most part are still under the surface, but should the demand for labor continue greater than the supply trouble will undoubtedly be brought to a head. While threats of strikes have been freely made on the large railway systems, there has been no actual stoppage of traffic except on the Grand Trunk, which operates largely in Canada, although it has considerable mileage in this country. Some violence is noted among the track employes of an Eastern road. Unrest is observed among the building trades' employees in New York and Chicago.

The unrest seems to be world wide, as the employees of the railways of both Great Britain and France are dissatisfied with their remuneration. The labor problem is the most serious affair confronting the country and the laborers themselves.

The steerage passengers arriving at the port of New York from Jan. 1 to July 23 numbered 664,915, compared with 584,625 in the corresponding time last year.

THE COMPENSATION OF WORKMEN in the building trades has increased faster than in other lines of industry. This is particularly true of New York City. It is unfortunate that most of the figures compiled relating to the hours of labor and the remuneration received are untrustworthy. Authentic information, however, is obtained by reprinting the table appearing in Engineering News, Sept. 10, 1881. This table is reproduced in the accompanied engraving and gives the number of hours worked, the wages received by employees of the various lines both in 1878 and in 1881. At the time the table was published there was a popular outcry against the high cost of living. The rates of wages received this year are given in another table, entitled "Wages Paid and Hours Worked in 1910." Conditions have changed in all lines, but the building trades in particular have changed much in that time, the number of different trades having greatly increased. From these tables a third one has been compiled giving the average rate of wage and hours worked in the years 1878, 1881 and 1910 in parallel columns. This not only shows the absolute increase in wages per hour, but the decrease in the number of hours worked. It is interesting to note that while the increased rate of wage paid in 1881 compared with 1878 was 31% in the building trades and 32.5% in other lines of industry, the increase in 1910 compared with 1878 is 135% in the building trades and only 85% in other lines of industry. In compiling these figures the same eleven trades have been taken for each year. These percentages are based on the actual rate of wages paid per hour. The number of hours worked in the building trades have also been reduced more than in other lines, the decrease being approximately 26%, while in the non-building trades the decrease was but 14%.

WAGES AND HOURS OF LABOR IN 1878 AND 1881.

Occupation.	1878. Hours.	1878. Wages, full time.	1881. Hours.	1881. Wages, full time.
Bricklayers	59	$12 to 15	59	$18 to 24
Masons	58	12 to 18	59	15 to 21
Carpenters and joiners	59	9 to 12	59	12 to 18
Gasfitters	60	10 to 14	59	15 to 21
Painters	58	10 to 16	59	15 to 18
Plasterers	59	10 to 15	59	15 to 21
Plumbers	59	12 to 18	59	18 to 21
Slaters	59	10 to 15	59	15 to 21
Blacksmiths	60	10 to 14	60	12 to 21
Bakers	60	5 to 8	72	8 to 14
Bookbinders	60	12 to 18	60	10 to 15
Shoemakers	pc.	12 to 18	pc.	10 to 14
Butchers	70	8 to 12	pc.	18 to 25
Cabinetmakers	60	9 to 13	60	15 to 18
Coopers	60	12 to 16	59	9 to 15
Coppersmiths	60	12 to 15	60	12 to 15
Cutlers	60	10 to 13	60	10 to 14
Engravers	60	15 to 25	60	15 to 20
Horseshoers	59	12 to 18	59	15 to 24
Millwrights	60	10 to 15	60	15 to 21
Printers	60	8 to 18	60	15 to 24
Saddlers and harnessmen	60	12 to 15	60	12 to 15
Sailmakers	56	12 to 18	56	12 to 15
Tinsmiths	60	10 to 14	60	10 to 15
Tailors, custom work	pc.	10 to 18	pc.	18 to 25
Brass founders	60	10 to 14	59	15 to 21
Laborers, porters, &c.	60	6 to 9	60	9 to 15

WAGES PAID AND HOURS WORKED IN VARIOUS TRADES IN 1910.

	Hours worked.	Daily wages.
Bakers	60	*$15.00 to $20.00
Bricklayers	44	5.60
Bricklayers' helpers	44	3.00
Book-binders	48	*18.00
Blue stone cutters	44	4.50
Brass founders	54	*18.00
Butchers	60	*15.00 to 20.00
Carpenters on build'gs	44	5.00
Carpenters in shop	44	4.00
Cement masons	44	5.00
Cement masons helpers	44	2.00 to 2.80
Cabinet makers	44	4.00
Coopers	54	*15.00 to 18.00
Coopersmiths	49	4.00 to 4.25
Derrickmen	44	2.80 to 3.50
Electricians	44	4.50
Elevator constructors	44	5.00
Elevator constructors' helpers	44	3.20
Granite cutters	44	4.50
Hoisting engineers	44	5.00
House shorers	44	3.50
Horseshoers	53	*24.00
Heat and cold insulators	44	4.50
Heat and cold insulators' helpers	44	2.80
Lathers	44	4.50
Marble cutters and setters	44	5.00
Marble carvers	44	5.50
Mosaic Workers	44	4.00 to 4.25
Millwrights	44	4.50
Machinists	44	4.50
Modelers and sculptors	..	*30.00
Plumbers & gasfitters	44	5.00
Painters	44	3.50
Decorators	44	4.00
Structural and ornamental iron setters	44	5.00
Printers	48	*21.00
Steam fitters	44	5.00
Steam fitters' helpers	44	3.00
Sheet metal workers	44	4.50
Stone setters	44	5.50
Slate & tile roofers	44	4.75
Tile setters	44	5.00
Tar & felt roofers	44	3.00
Upholsterers	44	3.50
Wood workers	44	2.50 to 3.00
Wood carvers	44	3.75 to 5.00
Stone masons	44	4.60
Stone masons' helpers	44	2.64
Marble polishers	44	4.00

*Per week.

WAGES AND HOURS OF LABOR IN VARIOUS YEARS.

	1878. Hours per week.	1878. Cents per hour.	1881. Hours per week.	1881. Cents per hour.	1910. Hours per week.	1910. Cents per hour.
*Bricklayer	59	20.37 to 25.42	59	30.51 to 40.72	44	70
*Mason	58	20.68 to 31.02	59	25.42 to 35.59	44	62.50
*Carpenter and joiner	59	15.25 to 20.34	59	20.34 to 30.51	44	50.00 to 62.50
*Gasfitter	60	16.66 to 23.33	59	25.42 to 35.59	44	62.50
*Painters	58	17.24 to 27.58	59	25.42 to 30.51	44	43.75
*Plasterers	59	16.95 to 25.43	59	25.42 to 35.59	44	68.75
*Plumbers	59	20.34 to 31.51	59	31.51 to 35.59	44	62.50
*Slaters	59	16.95 to 25.43	59	25.42 to 35.59	44	59.75
Blacksmiths	60	16.66 to 23.32	60	19.99 to 39.99	53	43.39
Bakers	60	8.33 to 13.33	72	11.11 to 19.44	60	24.99 to 33.32
Bookbinders	60	19.99 to 29.99	60	16.66 to 24.99	48	37.50
Butchers	70	10.14 to 12.17	70	25.71 to 35.71	60	24.99 to 33.32
*Cabinetmakers	60	14.99 to 21.66	60	24.99 to 29.99	44	50
Coopers	60	19.99 to 26.66	59	15.25 to 25.42	54	27.77 to 33.33
Coopersmiths	60	19.99 to 24.99	60	19.99 to 24.99	44	44.44 to 47.22
Horseshoers	59	20.34 to 31.51	59	25.42 to 40.72	53	43.39
*Millwrights	60	16.66 to 24.99	60	24.99 to 34.99	44	56.25
Printers	60	13.33 to 29.99	60	24.99 to 39.99	48	43.75
Tinsmiths	60	16.66 to 23.32	60	16.66 to 24.99	44	56.25
Tailors	60	16.66 to 29.99	60	29.99 to 39.99	53	37.73 to 47.19
Brass founder	60	16.66 to 23.32	59	25.42 to 35.60	48	37.50
Laborers, porters	60	10.00 to 15.00	60	15.00 to 24.99	53	16.50 to 36.00

*Building Trades.

CEMENT, LIME AND BRICK.

PORTLAND CEMENT.—Manufacturers of Portland cement advanced their price 10 cts. per bbl. last month. This was in what was called the Eastern territory, being the restricted district east of Harrisburg, Pa. The price change was not at all unexpected, for many contractors had, in making their estimates earlier in the year, figured that cement might be anywhere from 10 to 20 cts. per bbl. higher before Summer. It would not be surprising if prices should be again further advanced. The Eastern manufacturers are securing approximately 90 cts. per bbl. in bulk at the mill, and while the demand is greater than ever before, there is no likelihood of any shortage.

It is conservatively estimated that the output this year will run close to 70,000,000 bbls. Shipments are heavy from all parts of the country, although the mills in the Lehigh Valley are not progressing at the same rate that other mills are. In the Canadian territory the situation is far more satisfactory than at any time in several years. Manufacturers are securing $1.25 in bulk at the mill and have practically all the business that they can take care of. The only place in this country there is likely to be a shortage is in the Kansas territory and it would not be surprising if a shortage developed there some time in September. The makers of cement in that district can easily secure $1.20 in bulk at the mill.

The advance of 10 cts. per bbl. referred to brings the price of cement in New York to $1.53 per bbl.; in Philadelphia, $1.52; in Buffalo, $1.60.

Imported cement continues without change, Alsen's being quoted at $2.42, and Dyckerhoff's $2.43.

NATURAL CEMENT.—Business shows a decided improvement compared with that ruling earlier in the year, but is still far from satisfactory. The principal contracts taken are not being specified as freely on as was hoped. Prices are without change at 80 cts. per bbl. delivered alongside of dock New York City.

LIME.—The demand is fairly satisfactory, being a decided improvement compared with last month and the mills are reported as working to about 90% of capacity. This is chiefly due to the fact that the building trades were unusually quiet during the early part of the year and there was very little lime used. Prices continue unchanged from last month. For large lots delivered in New York City quotations are as follows: State common, per bbl., 75 cts.; Rockland-Rockport common, 92 cts.; Rockland-Rockport special, 320 lbs., $1.47; select finish, 350 lbs. net, $1.60; New Milford, $1.30.

Hydrated lime for brick work is $6.50 per ton; for finishing, $9.00 per ton is asked. These prices are for carload lots.

Adamant wall plaster is $6.00 per ton delivered at the work.

BRICK.—Prices of brick have declined again this month, but the deliveries have been large and there is no surplus now on the market. It is evident, however, that there will be enough and to spare for the current season's requirements, consequently builders are not at all anxious to cover their requirements any time in advance, nor are contractors buying any more than needed for work in sight. The manufacturers of brick are disposed to await developments, but are making no attempt to force sales. Hudson River common are selling at $5.00 to $5.50; light hard brick are quoted at $3.75 to $4.00.

In Boston the price is unchanged at $7.00 and the same figure is quoted in Chicago.

White enameled brick are moving freely at the unchanged price of $60 per thousand for the American size (8¾ × 2¼-in. enameled surface by 4⅛-in. bed) and $70 to $75 for the English size (9 × 3-in. enameled surface by 4½-in. bed). These prices are f. o. b. Perth Amboy.

PLASTER BLOCKS.—For large lots prices are as follows:

	Weight lbs. per sq. ft.	Price cts. per sq. ft.
2-in.	7	6
3-in.	8½	6¼
4-in.	11	7¼

These blocks are made 32-in. long by 13½-in. wide containing 3 sq. ft. of surface. The 2-in. blocks are solid, but the others are hollow.

Plaster boards ⅝-in. thick are 16 cts. per sq. yd.

STONE.

BLUESTONE.—The volume of bluestone business transacted this year has not been up to expectations, still there has been considerable stone disposed of in the territory adjacent to New York. Not as much stone has been taken out of the quarry last season so there is no unusual amount pressing on the market. Prices are practically without change from those of last month. For delivery, either along side of dock or f. o. b. cars, New York City, are as follows: Flagging, 6 cts. per sq. ft. per in. of thickness; flagging, 2½ to 3-in. thick that will pass New York City specifications, 18 to 19 cts. per sq. ft. Some concessions, however, have been made and stone of this character has sold at 17 cts.

Sewer bottoms 5 ft. sq. and 3-in. thick are sold at 25 cts. per sq. ft. Curbing, 5 × 16-in., is 35 cts. and 5 × 24-in. by 5-in. thick is 60 cts., and 6-in. thick is 72 cts. per lin. ft.

Promiscuous shapes of building and foundation stone sell at 70 to 74 cts. per cu. ft.

GRANITE.—The sellers of granite for building purposes have not had a satisfactory season and there are few large jobs in prospect. Prices are without change at 40 to 45 cts. per cu. ft. for promiscuous shapes or run of quarry.

Pink Milford granite is $1.00 per cu. ft. for promiscuous shapes.

LIMESTONE.—While there are several yards closed for the lack of work, still the limestone business has been better than the granite trade. Price continues unchanged, and for large lots of limestone delivered along side of dock, New York City, 85 cts. per cu. ft. is named. Dressed stone is from $1.25 to $1.50 per cu. ft.

Sandstone in the rough is 80 cts. to a $1 per cu. ft.

INTERIOR STONE.—The demand is fair, but there is not a large amount of work to

look forward to. Prices vary with the size of the work, but in general slate flooring 1-in. thick can be had at 20 cts. per sq. ft. for the common or ribbon variety. Clear black sells at 35 to 40 cts., and the same price is asked for Vermont. A combination of slate and marble flooring is 30 cts. per sq. ft.

Marble flooring finished ready to lay of Vermont marble is 50 to 70 cts. per sq. ft.; Italian marble, 70 to 90 cts. Tennessee marble can be had at 65 cts. Ordinary stair work, such as slate steps, are quoted at 24 cts. per sq. ft.

CRUSHED STONE, SAND AND GRAVEL.

CRUSHED STONE.—A marked improvement is noted in the demand for crushed stone and prices have advanced considerably. During the wet weather prevailing in June there was much stone thrown on the market considerably below the usual figure, for the largest contractors were not taking their full quota of material. Now the demand is greater than the supply and one important seller has been unable to furnish prompt shipments. Others have asked and received premiums for nearby deliveries.

Crushed stone is selling at 90 cts. to $1 per yd. for 1½-in. stone; 95 cts. to $1.10 for ¾-in. stone; screenings would also command 95 cts. to $1.10. These prices are for full cargo lots of 500 cu. yds. delivered alongside of dock New York City.

SAND.—The local market has been very active and much sand has been sold. There was probably more business done in July than during the preceding month and then a new high record was made. Prices are without change. Standard grades of Long Island washed sand are quoted at 35 cts. per cu. yd. delivered alongside of dock.

White quartz sand is 58 to 62 cts. per cu. yd. and white quartz grit 75 cts. per cu. yd.

GRAVEL.—The sellers of gravel have had another good month and the amount of material disposed of made a new high record. This, however, is not an infallible index to the activity in construction work, for gravel is now being accepted by many engineers who would not have recognized it as a standard material a few years ago. Prices are no higher than last month, but there is an upward tendency. For best grades of washed gravel, 80 to 85 cts. per cu. yd. is quoted for full cargo lots of 500 cu. yds. delivered alongside of dock.

White quartz roofing gravel is $1.25 to $1.35 per net ton.

IRON AND STEEL.

PIG IRON.—Less iron has been sold by blast furnace interests last month than during June. Shipments, however, are being freely made on old contracts, and there has not been any especial activity in trying to secure new business. Few of the furnaces had an unwieldy surplus to dispose of, for either July or August delivery, and consumers themselves also had sufficient material to tide them over for the time being. Some fairly large sales of steel making iron are reported, and practically without an exception where new business has been booked, it has been at concessions from figures ruling a month ago. These reductions in prices, however, have been small and the market is evidently near the bottom. It is well to note that No. 2 Southern iron in Chicago is but 50 cts. a ton higher than the low figures reached early in 1909, which was the lowest point in four years. Quotations for Bessemer pig iron are also but slightly in excess of those in 1909. The policy of blowing out blast furnaces, so much in evidence in the first half of the year, has not been so aggressively pursued lately as production has been nearly equal to consumption. It is pointed out that even with the present restrictions, the production of pig iron is larger than at any time prior to the 1907 panic, and if new blast furnaces had not been built during the dull years, there would be a demand in excess of the supply. The report of the U. S. Steel Corporation showing unfilled orders of 4,250,000 tons was better than had been expected. The fact that this interest is going to publish monthly figures of unfilled orders will give an excellent index to trade conditions.

Prices changed only slightly from those quoted in June, and the market is much steadier than at that time. The following quotations are for lots of 100 gross tons and over f. o. b. the points named: Cincinnati Southern foundry No. 1, $15.25 to $15.75; Southern foundry No. 2, $14.75 to $15.25; Southern foundry No. 4, $14 to $14.25. In Philadelphia, Eastern Pennsylvania No. 2 X foundry, $16.25 to $16.50; Eastern Pennsylvania No. 2 plain foundry, $16 to $16.25. In Chicago, Northern foundry No. 2 is $16.50 to $17, and Southern No. 2 is $15.85 to $16.35. In Pittsburg Bessemer iron is $16.40 and basic $15.40. These quotations include the 90-ct. freight rate from the valley. In New York No. 2 X Northern foundry is $16 to $16.25; No. 2 Southern foundry in Birmingham can be had at $11.25 to $11.75, and rumors are afloat that a firm offer for a large tonnage at $11 would not be turned down.

STEEL RAILS.—As far as new orders are concerned business is exceedingly dull, although the Mexican Central is in the market for about 20,000 tons of standard sections. The leading rollers of rails have had a fair run of orders for light rails, the contracts ranging less than 1,000 tons.

Quotations are without change, the following prices being named for lots of 500 tons and over, carload lots being held at 50 cts. a ton additional; these quotations are f. o. b. mill: Standard sections, 50 to 100-lb., $28; 40 to 45-lb., $27; 30 to 35-lb., $27.50 to $28.50; 20 to 25-lb., $27.25 to $28.25; 12 to 14-lb., $29; 8 to 10-lb., $32. Relaying rails can be had cheaper at $20 to $21 in New York, but in Chicago are $24 to $25.

TRACK SUPPLIES.—Quotations are considerably lower than a month ago, and in spite of this the demand is light. The railways have not bought the material they were expected to earlier in the year and the spike business has been especially dull.

Prices are as follows: Standard railway spikes, 4½ × 9/16-in. and larger, are 1.50 to 1.60 cts. per lb. Boat spikes and small railway spikes are 1.60 to 1.65 cts. Track bolts with square nuts are 2.40 to 2.50 cts. per lb. and angle bars, 1.50 to 1.55 cts. per lb. in Chicago and Pittsburg.

STRUCTURAL SHAPES.—The volume of business being booked in structural shapes is surprising considering the fact that the railways have been practically out of the market. They have confined their purchases to urgent requirements, still the fabricating shops all over the country are busy and have much work in sight for several months to come. These are composed chiefly of small orders for mill buildings or roof trusses, both of which have aggregated a large tonnage.

The most important work contemplated now is the Quebec Bridge, which will involve anywhere from 65,000 to 80,000 of steel. It is probable that at least half of this will be nickeled steel. Whether American manufacturers will be able to secure the contract is somewhat doubtful, but in any event there will be keen competition from both German and English mills. Some of the steel work for the new Grand Central Terminal in New York City is now being figured on. Several small bridges will be required for crossing over the Barge Canal and the Cape Cod Canal. Taken altogether, business exceeds the expectations of many who are thought to be extremely well informed regarding matter in the steel trade.

Prices are again lower, the cut having amounted to about $1 per ton. The following quotations are named in cts. per lb. f. o. b. Pittsburg: I-beams and channels, 3 to 15-in., 1.40 to 1.45 cts.; over 15-in., 1.55 cts.; H-beams, over 8-in., 1.65; angles, 3 to 6in. inclusive, 1.50 cts.; angles over 6-in., 1.55 cts.; zees, 3-in. and over, 1.50 cts.; angles, channels and zees under 3-in., 1.40 base plus 10 cts. and any extras; deck beams and bulb angles, 1.75 cts.; hand rail tees, checkered and corrugated plates, 2.75.

Chicago store prices in cents per lb. are as follows: Angles, 3 to 6-in., 1.80 to 1.90 cts.; over 6-in., 1.90 to 2 cts.; I-beams and channels, 1.80 to 1.90 cts. In San Francisco prices from store continue without change at 2.70 cts. base.

OLD MATERIAL.—Practically all the business transacted during the month, especially in scrap steel, was among dealers themselves. Prices of re-rolling material continued to sag, but some animation has been noted in the demand for cast scrap and a few quotations are slightly higher than a month ago. In New York and vicinity prices are as follows per gross ton; Re-rolling rails, $12 to $12.50; heavy melting steel scrap, $11 to $11.50; No. 1 railroad wrought, $13.25 to $13.75; No. 1 yard wrought, $11 to $12; pipes and flues, $11.75 to $12.25; cast borings, $7.50 to $8; machinery cast, broken up, $11.50 to $12; stove plate, $9 to $9.50.

In Chicago the market is exceedingly dull, and in some cases dealers are storing material rather than selling it at a loss. Quotations are as follows per gross ton: Re-rolling rails, $15.75 to $16.25; heavy melting steel scrap, $12.25 to $12.75; shoveling steel, $11.75 to $12.25. For such materials as are sold by the net ton, prices are as follows: Miscellaneous railroad wrought, $11 to $12.50; machine shop turnings, $7.25 to $7.75; cast and mixed borings, $4.75 to $5.25; No. 1 cast scrap, $13 to $13.50; pipes and flues, $9.25 to $9.75; railroad malleable, $11 to $11.50; agricultural malleable, $10.50 to $11.

The Pittsburg market is inactive and the continued decline in heavy melting steel scrap is considered a most depressing feature. There are a few, however who voice the opinion that the decline has about run its course. Quotations per gross ton are as follows: Re-rolling rails, $15.75 to $16; No. 1 foundry cast, $14 to $14.50; No. 2 foundry cast, $13 to $13.25; old grate bars, $10.75 to $11; old car wheels, $14 to $14.50; cast borings, $7.50 to $7.75; machine shop borings, $9.25 to $9.50; bundled steel scrap, $9.50 to $10.

CAST IRON PIPE.—Whenever a large order appears, there is sharp competition and, on account of the low quotations for pig iron close prices are named. Routine business is taken at the quoted figures. The American Cast Iron Pipe & Foundry Co. booked an order for 500 tons for Decatur, Ill., recently.

Prices are as follows per net ton at the points named: Birmingham, Ala., 4 to 6-in., $23; 8 to 12-in., $22; over 12-in., $21. In Chicago: 4-in. is $28; 6 to 12-in. $27; 16-in. and larger, $26.

In New York, 6-in. is quoted at $23.50 to $24.

Gas pipe is held at $1 per ton advance in all markets.

Specials are $50 to $60 per net ton.

PLATES.—The car orders have not turned out as expected although the Harriman lines have bought quite a number of steel cars for early delivery and the Pennsylvania closed negotiations for a large number of locomotives. The Baltimore & Ohio purchased a few cars but general business from the railroads has been exceedingly backward during the month.

It has been so light, in fact, that many who had a vague idea of the trade and believed that its continuance was only a matter of railroad buying were much disappointed. The railroads, while the largest important consumers of steel, are not as important in proportion to the total tonnage of steel as they once were. Few large jobs are in prospect, although a pipe line for Los Angeles will require about 20,000 tons of plates. These may be rolled abroad unless American makers are willing to accept low quotations.

Prices have again eased, and plates can be secured $1 a ton lower than last month or $2 a ton lower than the prices running earlier in the year. We quote as follows, f. o. b. mill, in cts. per lb.: ⅜-in. thick, 6¼ to 100 in. wide, 1.40 to 1.45 cts.; ¼ to 3/16 in. thick, 1.50 to 1.55 cts.; 3/16 in. and thinner, including No. 8 gage, 1.55 to 1.65 cts.; Nos. 8, 9 and 10 gage 1.70 to 1.75 cts.

In Chicago store prices are 1.85 to 1.95 cts.

STEEL CASTINGS.—Business is not as active because of the falling off in the volume of orders from car builders. Foundries, however, are still fairly busy and prices continue without change. Open hearth castings, weighing from 100 to 500 lbs., are 3½ to 5 cts. per lb. Crucible castings, weighing within the same limits, are 7½ to 9 cts. per lb.

RIVETS.—Business is quiet. There is a fairly large run of orders from fabricators, but car manufacturers are not taking advantage of revised quotations which are as follows: Structural rivets, ¾-in. and larger, 2.15 cts., base; cone head boiler rivets, ¾-in. and larger, 2.25 cts., base; ⅝-in. and 11/16-in. take an advance of 15 cts., and ½-in and 9/16-in. take an advance of 50 cts.; in lengths shorter than 1-in. also take an advance of 50 cts. Terms are 30 days, net cash, f.o.b. mill.

PILING, SHEET STEEL.—Manufacturers of steel piling are making headway all the time and have their product used more extensively. The tonnage disposed of, however, is not large. Prices are a shade easier and standard piling can be had at 1.50 to 1.60 cts. per lb., f.o.b. mill Pittsburg district.

CASTINGS, GREY IRON.—The demand is not as active as a month ago, and have desirable orders from an unusually keen competition. In general, however, prices are unchanged from last month as follows: Columns are 1.75 to 2 cts. per lb. For work in a large building, probably 1.65 cts. could be done. Stair work is unchanged at 2 to 2.25 cts. per lb. Rough castings, such as sewer work, manhole covers, and general castings of large size, are 1.50 to 1.75 cts. per lb.

WIRE ROPE.—Prices of wire rope continue unchanged from last month. The discount to the larger trade being 42½ and 5% from list for galvanized, and 50 and 5% from list for bright. The net prices of bright wire rope are as follows:

Diameter inches	Price per foot: Cast steel.	Crucible steel.	Plow steel.
2¾	$1.05	$1.24	$1.46
2½	.85	1.05	1.22
2	.57	.65	.76
1¾	.44	.54	.64
1½	.32	.39	.45
1¼	.23	.28	.32
1	.15	.18	.21
¾	.10	.11	.13
⅝	.07	.09	.10
½	.06	.07	.07

ROOFING, CORRUGATED.—Trade has been less active during the past month owing to a reduction in prices of plain sheets. While the total tonnage disposed of was not large it was fairly satisfactory and the concession of $3 to $4 per ton named on sheets was not made on corrugated material. It is possible, however, to obtain concessions of approximately $2 per ton on desirable orders.

Quotations are unchanged from last month and for 100 sq. ft. of roof surface are as follows: Carloads, Pittsburg, No. 28 painted, $1.70; No. 28 galvanized, $3. From store, New York, No. 24 painted, $3.85; galvanized, $4.80; No. 26 painted, $2.95; galvanized, $4; No. 28 painted, $2.60; galvanized, $3.75.

FREIGHT RATES.—The freight rates, on finished steel products, from the Pittsburg district, including plates, structural shapes, merchant steel and iron bars, pipe, fittings, plain and galvanized wire, nails, rivets, spikes and bolts (in kegs), black sheets (except planished), chain, etc., are as follows, in cts. per 100 lbs.: Albany, 16; Buffalo, 11; Boston, 18; Baltimore, 14½; Canandaigua, 13½; Cleveland, 10; Columbus, 12; Cincinnati, 15; Chicago, 18; Harrisburg, 14½; Louisville, 18; New York, 16; Norfolk, 20; Philadelphia, 15; Rochester, 11½; Richmond, 20; Scranton, 15; St. Louis, 23; Washington, 14½.

TIN PLATE.—Manufacturers of tin plate continue to run their mills at record-breaking rate. The leading interest is now turning out a larger tonnage of tin plate than ever before in its history. It is expected that the canning season will be an unusually active one.

The labor troubles which have at no time been at all serious have been amicably settled.

Terne plates or tin plates used for roofing purposes are sold by the box of 112 sheets. Store prices in New York are without change at $8.50 per box for 20 × 28-in. I C plates with an 8-lb. coating; plates of the same size with a 15-lb. coating are $10.40; 20-lb. coating, $13 and 40-lb. coating, $16.50.

COKE.—It is evident that production has not been curtailed as much as it should be and coke has accumulated. About 400,000 tons are being made weekly in the upper and lower Connellsville regions, a slight increase compared with last month. Several long term contracts have been entered into during the month. Prices are without appreciable change. The best grades of furnace coke, running under 1% in sulphur, are sold at $1.80 to $1.85 per ton at oven, on contracts running throughout the year. Coke for immediate shipment can be had at $1.60 to $1.65. Foundry coke is unchanged in price, best grades of 72-hr. foundry being obtainableat $2.15 to $2.40 per net ton.

NAILS.—In common with all other wire products, the price of nails has been reduced approximately $3 per ton. This has stimulated a little buying from jobbers.

Prices per keg of 100 lbs. are revised as follows: In carload lots to jobber, $1.70; to retailers, $1.75; less than carloads to jobbers, $1.75; to retailers, $1.85. Small lots are sold from New York store at $2.05 for wire nails and cut nails at the same figure. In Pittsburg cut nails are quoted at $1.70 base.

SHEETS.—Business is not as active as it was a month ago, nor is it excessively quiet. There is a fair demand but the reduction amounting to about $1 per ton did not stimulate business to any extent. The following prices for mill shipments are revised in accordance with the new list.

Prices for mill shipments of carload lots are as follows:

	Cts. per lb.: Black.	Galvanized.
Nos. 3 to 8	1.70	....
Nos. 9 and 10	1.75	....
Nos. 11 and 12	1.80	....
Nos. 13 and 14	1.85	2.50
Nos. 15 and 16	1.95	2.60
Nos. 17 to 21	2.10	2.75
Nos. 22 and 24	2.15	2.90
Nos. 25 and 26	2.20	3.10
No. 27	2.25	3.20
No. 28	2.30	3.40

Store prices Chicago are as follows:

	Cts. per lb.: Black.	Galvanized.
No. 10	2.30	
No. 12	2.35	3.25
No. 14	2.40	
No. 16	2.50	3.35
Nos. 18 and 20	2.85	3.40
Nos. 22 and 24	2.90	3.55
No. 26	2.95	3.70
No. 27	3.00	3.95
No. 28	3.10	4.15
No. 30	3.30	4.55

WIRE.—A reduction of $2 per ton in wire products announced July 13 has stimulated some business. The heavy consuming season, however, is over and no great amount of new business, particularly for fence wire, can be expected this year. The base prices of plain wire to retailers f. o. b. Pittsburg are as follows. Carloads, annealed, $1.55; galvanized, $1.85; less than carload lots are held at an advance of $2 per ton. Barbed wire in carload lots to retailers is $1.75 for the painted and $2.05 for the galvanized. Less than carload lots are $2 per ton higher. All of these prices are per 100 lbs.

MERCHANT PIPE.—Trade has not been at all active but there are several large contracts in sight and it is probable that these will give the mills plenty of work to do for the next few weeks. An inquiry was received from the Arkansas Federal Gas Co., for 10 to 12 miles of 10-in. and 7 miles of 6-in. pipe; another company is in the market for 15 to 20 miles of 10 and 12-in. pipe and the Ohio Fuel Supply Co., is expected to buy about 15 miles of 10-in. and 30 miles of 16-in. pipe.

The regular discounts on pipe are fairly well maintained on the small sizes but there is still considerable shading in the prices of large pipe. Discounts which were in effect last month are repeated as follows. ¾ to 6-in. black, 78%; ¾ to 6-in. galvanized, 68%; 7 to 12-in. black, 72%; 7 to 12-in. galvanized, 57%. At these discounts the net prices of pipe per foot, are as follows:

	Steel Pipe in Cts. per ft. f. o. b. Mill: Black.	Galvanized.
¾-inch	2.53	3.68
1- inch	3.63	5.28
1¼-inch	4.95	7.20
1½-inch	5.94	8.64
2 -inch	7.92	11.52
2½-inch	12.67	18.30
3 -inch	16.61	24.16
4 -inch	23.76	34.56
5 -inch	32.90	46.30
6 -inch	42.36	60.16
7 -inch	65.80	101.05
8 -inch	70.00	107.50
9 -inch	95.20	146.20
10 -inch	112.00	172.00
11 -inch	126.00	193.50
12 -inch	137.20	210.70

SWEDISH STEEL.—The buying of Swedish steel is active and in spite of the large stocks here, and on the way, some of the largest importers have difficulty in making shipments with the promptness desired.

Prices are without change. Drill steel, either round, hexagonal or octagon, is 6 cts. per lb. for all sizes ⅝ to 2 ins. For sizes 2⅛ to 3 ins. 7 cts. is quoted and 3⅛ to 4 ins. is 7½ cts.

Hollow drill rod is held at 12½ to 15 cts. for the imported.

Anvils of Swedish steel are held at 9 to 9½ cts. per lb. They weigh from 80 to 600 lbs.

BARS AND MERCHANT SHAPES.—The business being done by jobbers is good. Many prefer to buy small lots from store rather than load up with a large stock at the lower mill quotations. Prices are without change as follows:

	Cts. per lb.
1 to 1⅞-in. round and square	1.90
1½ to 4-in. × ⅜ to 1-in.	1.90
1½ to 4-in. × ¼ to 5/16-in.	2.10
Rods—⅝ and 11/16 round & square	2.10
Angles:	
3-in. × ¼-in. and larger	2.10
3-in. × 3/16-in. and ⅛-in.	2.35
1½ to 2½-in. × ⅛-in.	2.35
1½ to 2¾-in. × 3/16-in & thicker	2.10
1 to 1¼ × 3/16-in.	2.20
⅞ × ⅛-in.	2.40
¾ × ⅛-in.	2.50
⅝ × ⅛-in.	3.55
½ × 3/32-in.	4.35
Tees:	
1-in.	2.65
1¼-in.	2.45
1½ × 2½ × ¼-in.	2.15
1½ × 2½ × 3/16-in.	2.35
3-in. and larger	2.15
Beams	2.10
Channels, 3-in. and larger	2.10
Bands—1½ to 6 × 3/16 to No. 8	2.35
Norway bars	3.60
Bessemer Machinery, Steel	1.90
Cast steel, base	7.00
Special cast steel, base	14.00 to 15.00

SWITCH POINTS.—The demand is only fair. The following prices are named f. o. b. mill for switch points in lots of ten or more pair; For 60-lb. rail, 10-ft. points, $16.25; 15-ft. points, $22.50; for 70-lb. rail, 10-ft. points, $18; 15-ft. points, $25; for 80-lb. rail, 10-ft. points, $25.50; 15-ft. points,

$27.75; for 90-lb. rail, 15-ft. points, $30.50; for 100-lb. rail, $33.50. All of the above are furnished with three rods, except the 10-ft. points for 60 or 70-lb. rail, which have only two.

LAG SCREWS.—Prices continue unchanged from last month. Cone point lag screws are sold at a discount of 75 and 10% form list. Net prices are as follows:

	Net price per 100—		
	¼-inch.	⅜-inch.	1-inch.
3½-inch	$1.17	$2.40	$5.00
4 -inch	1.25	2.55	5.25
4½-inch	1.33	2.70	5.50
5 -inch	1.40	2.85	5.80
6 -inch	1.58	3.20	6.40
7 -inch	1.73	3.50	7.00
8 -inch	1.82	3.85	7.60
9 -inch	2.05	4.10	8.20
10 -inch	2.25	4.45	8.75
11 -inch	2.40	4.70	8.30
12 -inch	2.60	5.00	9.90

CHAIN.—The following quotations are named on chain. The volume of business is less than normal and prompt shipments can be made.

Prices are without change per 100 lbs. f. o. b. Pitsburg, as follows:

Sizes in inches.	Proof.	BB.	BBB.
3-16	$8.25	$9.50	$10.00
¼	5.70	6.95	7.45
5-16	4.70	5.95	6.45
⅜	4.15	5.40	5.90
7-16	3.85	5.10	5.60
½ and 9-16	3.65	4.90	5.40
⅝	3.55	4.80	5.30
¾	3.45	4.70	5.20
⅞	3.35	4.60	5.10
1	3.25	4.50	5.00
1¼ and 1⅛	3.35	4.60	5.10

Hand-Made Chain.

Size in inches.	BBB crane chain.	BBB crane, dredge hoisting or steam shovel hoisting chain.	Special "Warwick" crane, hoisting steam shovel hoisting and dredge hoisting chain.	Special "Trident" crane, steam shovel hoisting and dredge hoisting chain.
⅝	$7.95	$8.20	$9.15	$9.15
¾	7.15	7.45	8.45	8.45
⅞	7.67	6.90	7.95	
1	6.15	6.40	7.45	
1⅛	5.75	5.95	6.90	
1¼	5.65	5.90	6.85	
1⅜ to 1½	5.55	5.75	6.80	

SPIRAL RIVETED PIPE.—Prices continue unchanged from the last report. The prices given below are f. o. b. factory, freight equalized, with New York City being figured at a discount of 50, 10 and 10% from list. They are for orders amounting to about $250. For large orders, of several carloads, prices are from 12½% to 20% cheaper.

Diameter in ins.	*Thickness of steel, Birmingham wire gage.	Net price per 100 ft. With bolted joints complete. Plain.	Asphalted.	Galvanized.
3	20	$21.80	$14.21	$20.70
4	18	19.76	21.48	30.74
5	18	23.49	25.70	37.14
6	16	33.05	35.76	49.73
7	16	37.58	40.76	56.82
8	16	43.17	46.80	65.00
9	16	50.06	54.10	74.22
10	14	66.42	71.08	96.15
11	14	71.20	76.57	102.24
12	14	83.75	89.15	118.32
13	14	89.67	96.55	127.98
14	14	99.14	105.51	138.85
15	14	108.05	114.89	151.92
16	14	117.53	124.82	166.58
18	12	167.43	175.95	226.44
20	12	183.79	193.30	248.39
22	12	200.48	210.64	269.21
24	12	219.92	231.07	293.99
26	10	280.26	292.41	370.78
28	10	301.32	314.89	395.37
30	10	324.81	339.15	430.64

*Made in both lighter and heavier gages at corresponding differences in price.

FROGS.—For mill shipments, of ten or more, prices are as follows: Bolted frogs No. 7, for 60-lb. rail, $15; for 70-lb. rail, $16.50; for 80-lb. rail, $18; No. 8 frogs for 90-lb. rail, $21; for 100-lb. rail, $23. Plate frogs No. 7, riveted to ⅝-in. plate for 60-lb. rail, $18; for 70-lb. rail, $20; for 80-lb. rail, $21.50. No. 8 frogs bolted to a ¾-in. plate for 90-lb. rail are $25.50; for 100-lb. rail, $27.50.

BOLTS.—Prices are without change. The discount on common carriage bolts, to the retail trade and larger consumers, is 70 and 7½% from list, on bolts ⅝ × 6 ins., and smaller. The lowest price is 65 and 5% discount for larger and longer bolts. Net prices are as follows:

Length in inches.	Diameter in inches— Net price per 100. ⅜	½	¾
4	$0.74	$1.22	$2.86
5	0.83	1.36	3.15
6	0.92	1.52	3.50
7	1.22	1.65	3.75
8	1.34	1.80	4.25
9	1.45	1.95	4.50
10	1.55	2.20	4.75
12	1.75	2.40	5.25
14	1.90	2.70	5.90
15	2.05	2.85	6.25
18	2.40	3.25	7.20
20	2.60	3.50	7.75

REINFORCING MATERIALS.

INTERLOCKING PLATES.—For interlocking steel plates, of 24 gage black steel f. o. b. mill central Ohio, the following prices are named:

Length.	Per 100 sq. ft. Weight.	Price Flat Sheets.
Under 4 ft.	100 lbs.	$11.00
4 to 6 ft.	160 lbs.	10.00
6 to 8 ft.	160 lbs.	9.50
8 to 10 ft.	160 lbs.	9.00
10 ft.	160 lbs.	8.50

Curved sheets are held at an advance of $1 per 100 sq. ft. over flat.

For a desirable order prices might be shaded about 10%.

TRIANGULAR MESH.—The volume of business continues large. There is still some talk of lower prices being named. For the present, however, quotations continue without change, as follows:

Price per 100 sq. ft.

Style No.	Cross sec. area per ft. width.	Carload lots.	Smaller quantities.
4	.102	$1.03	$1.25
5	.077	.82	.99
6	.058	.65	.78
7	.041	.50	.61
23	.170	1.73	2.08
24	.142	1.48	1.80
25	.124	1.32	1.60
26	.110	1.20	1.45
27	.085	.98	1.19
28	.066	.81	.98
29	.049	.67	.81
31	.261	2.55	3.08
32	.225	2.20	2.67
33	.196	1.96	2.38
34	.146	1.51	1.82
35	.109	1.20	1.45
36	.075	.89	1.07
38	.380	3.62	4.38
39	.325	3.12	3.77
40	.283	2.74	3.30
41	.208	2.08	2.52
42	.151	1.58	1.92
43	.101	1.13	1.36

This material is made in regular widths of 18, 22, 26, 30, 34, 38, 42, 46, 50, 54 and 58 ins. Standard lengths of rolls are 150, 300 and 600 ft. Cutting to special length is charged extra.

EXPANDED METAL.—Prices are firm and business is active. The following table of prices are for small lots from the warehouse, either New York or Pittsburg. Material concessions, however, will be made for large orders.

Mesh, ins.	Gage (Stubs).	Section in sq. in. per ft. width.	Weight, in lbs., per sq. ft.	Size of Standard Sheets in ft.	Price per sq. ft. f.o.b. New York.
½	18	.209	.74	8 × 3 or 6 ft.	5.5
¾	13	.225	.80	6 × 8 or 12 ft.	6.2
1½	13	.207	.70	4 × 8 or 12 ft.	5.5
2	12	.166	.56	5 × 8 or 12 ft.	4.8
3	16	.083	.28	6 × 8 or 12 ft.	2.4
3	10	.148	.50	5.25 × 8 or 12 ft.	2.6
3	10	.178	.60	6 × 8 or 12 ft.	2.8
3	10	.267	.90	4 × 8 or 12 ft.	3.8
3	10	.356	1.20	6 × 8 or 12 ft.	5.
3	6	.400	1.38	3.5 × 8 or 12 ft.	6.2
3	6	.600	2.07	4.66 × 8 or 12 ft.	8.3
4	16	.093	.42	4.5 × 8 or 9 ft.	2.8
6	4	.245	.84	5 × 8 or 12 ft.	3.7
6	4	.368	1.26	5 × 8 or 12 ft.	5.

EXPANDED LATH.—Prices are firm. The price for carload lots given below is f. o. b. mill central Ohio:

Carload Lots. Price in cts. per sq. yd.

Gage.	Weight per sq. yds.	Black.	Painted.	Galvanized.
27	2¼ lbs.	11½	12¼	17½
26	2½ lbs.	12½	13¼	18½
25	2 lbs.	13½	14¼	19½
24	3.4 lbs.	14½	15¼	20½

Small Lots from New York, Store. Prices in cents per sq. yd.

Gage.	Black.	Painted.	Galvanized.
27	13	13¾	19
26	14	14¾	20
25	15	15¾	21
24	16	16¾	22

This lath is packed 9 sheets to the bundle.

DIAMOND LATH FROM STORE.

Designation.	Gage.	Weight per sq. yd.	Price, Per sq. yd. Black, cts.
A	24	4 lbs.	20
A Special	24	4 lbs.	18
B	27	2.9 lbs.	16½
B Special	27	2.9 lbs.	15
B B	27	2.33 lbs.	14
Square Twist	24	4 lbs.	20
Diamond No. 24	..	3.75 lbs.	20
" No. 24 Special	..	3 lbs.	16½
" No. 26	..	2.66 lbs.	16½
" No. 26 Special	..	2.1 lbs.	14
Square Twist No. 27	..	2.75 lbs.	14½

BARS, CONCRETE REINFORCING.—The demand for bars for concrete work continues very good. If it were not for this, prices would be shaded more than the following quotations which are about .05-ct. higher than some sellers are quoting. These figures are based on a price of 1.45 cts., Pittsburg.

	Cts. per lb.— Plain.	*Deformed.
¾-inch and larger	1.45 to 1.55	1.50 to 1.60
⅝-inch	1.50 to 1.60	1.55 to 1.65
½-inch	1.55 to 1.65	1.60 to 1.70
⅜-inch	1.70 to 1.80	1.75 to 1.85
¼-inch	1.95 to 2.05	2.00 to 2.10

Bar from stock Pittsburg are usually cut to the required length without extra charge. Prices are as follows:

	Cts. per lb.— Plain.	*Deformed.
¾-inch and larger	1.65 to 1.75	1.75 to 1.85
⅝-inch	1.70 to 1.80	1.80 to 1.90
½-inch	1.75 to 1.85	1.85 to 1.95
⅜-inch	1.90 to 2.00	2.00 to 2.10
¼-inch	2.15 to 2.25	2.25 to 2.35

*The price of deformed bars varies according to the shape and some are held much higher than these prices.

Twisted bars are held at an advance of 10 to 25 cts. over plain bars.

The base price on plain bars from store, Chicago, is 2 to 2.10 cts.

CLAY PRODUCTS.

SEWER PIPE.—The business booked during July was not as large as during the earlier months of the year, and there is some disappointment regarding the volume of business done. At the same time there is a surplus of small sizes of tile pipe in the manufacturing establishments, but the large sizes can be shipped with the usual promptness.

Discounts continue unchanged from those previously reported. Those applying to the "Eastern List" are as follows: 86% for sizes up to 24-in.; 78% for 27 and 30-in. and 73% for 33 and 36-in. At these discounts the net price per ft. for carload lots f. o. b. factory, are as follows:

2 &	3-in.	$0.028
	4-in.	.035
	5-in.	.042
	6-in.	.056
	8-in.	.077
	9-in.	.091
	10-in.	.112
	12-in.	.14
	15-in.	.19
	18-in.	$0.267
	20-in.	.315
	21-in.	.378
	22-in.	.42
	24-in.	.455
	27-in.	.99
	30-in.	1.20
	33-in.	1.70
	36-in.	1.89

HOLLOW WALL TILE.—The leading makers of wall tile had the most satisfactory season the first six months of this year they have ever had. In the last month, however, business has fallen off. This is clearly traceable to fewer building operations involving the use of this material. Shipments can be made with a fair degree of promptness.

Quotations continue unchanged from last month, and for hollow wall building tile, f. o. b. factory, Perth Amboy, N. J., prices are as follows:

Size.	Price per block, in cts.
4 × 12 × 12-in.	5.25
6 × 12 × 12-in.	6.6
8 × 12 × 12-in.	8.9
10 × 12 × 12-in.	10.5
12 × 12 × 12-in.	12.1

Fireproofing partition blocks are unchanged as follows:

Size.	Price per block, in cts.
2 × 12 × 12-in.	4.4
3 × 12 × 12-in.	4.4
4 × 12 × 12-in.	5.
6 × 12 × 12-in.	6.6
8 × 12 × 12-in.	8.8

These prices are for what would be considered small orders—approximately carload lots. For quantities which exceed $1,000 worth of material, concessions will be made.

ROOFING TILE.—The demand is fair. Prices are steady, and, although firm, continue without change. The best grade of promenade roofing tile in flat blocks for high grade roofs is sold at $20 per M. for run of kiln and $30 per M. for selected. A cheaper form of tile with a smooth face can be had at $10 to $12, but it is not suitable for roof gardens. These prices are for 9 × 9 blocks f. o. b. factory. It requires 258 blocks to lay 100 sq. ft. of roof surface and, in consequence, the price per 100 sq. ft. of roof surface would be $4 to $5 for the smooth blocks; $7.82 for the run of kiln, and $10.73 for the selected.

Vitrified tile, unglazed, of the French or Spanish type, is sold at approximately $8.50 per 100 sq. ft. of roof surface f. o. b. factory. Glass tiles are sold at 60 cts. each. It requires 183 of these for 100 sq. ft. of roofing.

DUCT TELEPHONE.—Quite a little construction has been going on in the telephone line, and there has been active demand for all kinds of duct not only in New York, but in adjacent municipalities.

Prices are steady, and although small lots command 4½ to 5 cts. per duct ft. for New York delivery, large orders would be booked at a marked concession from these figures.

FLUE LININGS.—Prices continue without change. The discount from list, f. o. b. mill, is 85%, delivered in New York; in small lots, they can be had at 78%. Based on a discount of 85% at the mill net prices are as follows:

	Weight in lbs.	Price per.ft.
4½ × 8½-in.	14	$0.04½
4½ × 13 -in.	20	.068
4½ × 18 -in.	40	.15
6 × 12 -in.	22	.075
7 × 7 -in.	15	.053
8½ × 8½-in.	18	.068
8½ × 13 -in.	28	.098
8½ × 18 -in.	45	.135
12 × 16 -in.	45	.15
13 × 13 -in.	38	.128
13 × 18 -in.	57	.18
14 × 16 -in.	60	.165
16 × 16 -in.	65	.24
16 × 20 -in.	80	.30
18 × 18 -in.	75	.30

MILL SUPPLIES.

SHAFTING.—New orders are rather light, but this is giving the mills a welcome respite, for they have been running at full capacity on account of the demand from mill supply dealers and, more particularly, automobile manufacturers. There is still a large tonnage on the books to keep the makers actively engaged for several months. For large lots prices are somewhat easier, shafting being obtainable at 55% off the list, and in some cases at 55 and 5% discount. Small lots of less than carloads, but shipped direct from the mill, are sold at 50% discounts.

The following net prices per foot are based on the 50% discount: ¾-in., 4.15 cts.; 1-in., 7.30 cts.; 1¼-in., 11.50 cts.; 1½-in., 15 cts.; 1¾-in., 20.50 cts.; 2-in., 25.50 cts.; 2¼-in., 38.75 cts.; 2½-in., 41.75 cts.; 2¾-in, 50 cts.; 3-in., 60 cts.; 3½-in., 90 cts.; 4-in., $1.27½; 4½-in., $1.78; 5-in., $2.35; 5½-in., $3; 6-in., $3.85.

CHAIN BELTING.—The demand is good and prices continue unchanged as follows:

From 3 HP. to 10 HP., 30-in. centers complete, with two sprockets, $7 to $8 per HP.; from 10 HP. to 25 HP., 36-in. centers complete, $5 to $6 per HP.; from 25 HP. to 100 HP., 60-in. centers complete, $4 to $5 per HP.; from 100 HP. to 500 HP., 72-in. centers complete, $3 to $4 per HP.

PACKING.—Prices are steady and the demand is at least equal to normal. The following quotations are for small lots in original packages:

Asbestos wick and rope, 13 cts.; sheet rubber, 11 to 13 cts.; pure gum rubber, 40 to 45 cts.; red sheet, 40 to 50 cts. Cotton packing can be had at 16 to 25 cts.; jute at 3¼ to 3½ cts., and Russian at 9 to 10 cts.

GRAPHITE LUBRICANTS.—Some specialties are in excellent demand and for other products the inquiry is rather limited. As a whole, however, the business being transacted by manufacturers is up to normal. Prices continue without change as follows:

Engine flake graphite, 12 cts.; oiled graphite, 20 cts.; car box grease, 8 cts.; gear grease, for electric cars, 4¼ cts.; cup grease, 15 cts.; axle grease, 8½ cts.; automobile graphite grease, 16 cts.

Large consumers and jobbers can obtain considerable concession from these figures.

HIGH SPEED STEEL.—While the manufacturers of high speed steel are not as rushed as they have been at previous times, still their capacity has been greatly enlarged and the amount of high speed now being used is probably larger than ever before. Selling prices are largely governed by the popularity of the brand and the persistency of the salesmen, but prices in general run from 50 to 75 cts. per lb. Some of the largest users of steel make it a rule not to buy any steel selling at more than 50 cts. per lb.

LUBRICATING OILS.—Business is good from all kinds of consumers. Quotations continue without change; the following figures are named for 5-bbl. lots:

	Cts. per gal.
*Cylinder, light filtered	23 to 32
*Cylinder, dark	20 to 27
*Cylinder, steam refined	14 to 22
Neutral Oils, filtered:	
Stainless white, 32 to 34 gravity	28 to 29
Lemons, 33 to 34 gravity	17 to 19
Dark, 32 gravity	15 to 18
Crank Case oil	15 to 17

*Prices vary according to test.

BELTING.—Manufacturers of all kinds of belting are experiencing a good trade, but the leather belting manufacturers have some difficulty in securing the supplies needed, leather being high and also difficult to obtain of the required quality. Prices are unchanged, the discount on rubber belting being 40% from list for the best grade; 40 and 10% for standard and 60 and 10% for competition. Leather belting is likewise without change at 55% discount for extra heavy; 60% heavy; 60 and 10% medium; 60, 10 and 10% light; 70% shoulder, and 70 and 10% for standard.

The following net prices per ft. of leather belting are computed at the above discounts. The price of rubber belting is as stated unchanged from last month, the net prices may be found on page 13 of issue of July 7.

LEATHER BELTING, PRICE PER FT.

Width, ins.	Extra heavy.	Heavy.	Light.
1	$0.11	$0.096	$0.078
1½	.162	.144	.117
2	.215	.172	.156
2½	.27	.24	.195
3	.325	.288	.235
3½	.38	.337	.275
4	.435	.385	.31
5	.54	.48	.39
6	.65	.58	.465
7	.76	.675	.55
8	.87	.78	.62
9	.97	.86	.70
10	1.08	.96	.78
11	1.20	1.06	.85
12	1.30	1.15	.94
14	1.52	1.35	1.09
16	1.73	1.53	1.28
18	1.95	1.73	1.40
20	2.16	1.92	1.56
22	2.37	2.10	1.72
24	2.60	2.30	1.87
26	2.82	2.50	2.05
30	3.25	2.90	2.33
36	3.92	3.45	2.82
48	5.00	4.60	3.75

COTTON WASTE.—The demand is not at all active, the high price of waste making it necessary that its use be curtailed as much as possible. In bale lots it is sold at 9 to 10 cts. per lb. in New York City.

GLASS.

SKYLIGHT GLASS.—The demand for skylight glass is good. Much factory construction is now under way and the amount of glass used is larger in proportion than ever before. Prices continue without change as follows:

Thickness, ins.	Price per sq. ft.
1/8	7 cts.
3/16	10 cts.
1/4	15 cts.

Wired skylight glass, ¼-in. thick, is 25 cts. per sq. ft.

WINDOW GLASS.—Some of the leading manufacturers of window glass have advanced their quotations and the market is undoubtedly stronger. Jobbers, however, are plentifully supplied with glass and are able to furnish their customers at the old figure, which is 90% discount from list for all sizes of single and double strength. This discount applies to the Jobbers' list of October 1, 1903.

The net prices per box of 50 sq. ft., at the discount named, are as follows:

American Window Glass.

Size of Glass, Ins.	Single Thickness. Price per box, 50 sq. ft. A.	B.
6 × 8 to 10 × 15	$2.40	$2.20
11 × 14, 12 × 13 to 14 × 20	2.52	2.40
10 × 26 to 16 × 24	2.70	2.52
18 × 22, 20 × 20 to 20 × 30	2.87	2.64
15 × 36 to 24 × 30	2.96	2.70
26 × 28 to 24 × 36	3.14	2.79
26 × 34, 28 × 32, 30 × 30 to 30 × 40	3.47	2.94
32 × 38, 34 × 36 to 30 × 50	4.00	3.46
30 × 52 to 30 × 54	4.27	3.76

VAULT LIGHTS.—Business continues good. The extension of the subway platform of the New York Rapid Transit subway has taken considerable glass and another large project that is in sight, but will not be worked on for some time, is the Grand Central Terminal. Contractors who have their own molds can obtain glass at 4 to 5 cts. per lb. Bulls-eyes, 3-in. in diameter, are 3 cts. each, and square lights, 3½ by 3½ ins., are 5 to 6 cts. each.

PLATE GLASS.—More activity has been noted in the plate glass line during the last month than in the previous one, and the leading manufacturer of plate glass reports a larger business done during the first half of this year than in any corresponding period in the company's history.

A slight variation in price is noted and plate glass can now be had from the leading manufacturer at 89% discount from list.

In the accompanying table the net price of polished plate glass is figured at this discount. These prices apply to the glass only, an extra charge being made for boxing or cutting to special sizes.

NET PRICES OF POLISHED PLATE GLASS IN DOLLARS.

Length, feet.	Width, Feet 1	1.5	2	2.5	3	3.5	4	4.5	5	6	7	8	9	10
1	$.024	$0.38	$0.50	$0.66	$0.86	$1.04	$1.18	$1.38	$1.52	$2.40	$2.86	$3.25	$3.75	$4.17
1.5......	....	.59	.86	1.10	1.42	2.10	2.40	2.76	3.08	3.75	4.38	5.00	5.70	6.90
2	....	....	1.18	1.59	2.40	2.86	3.25	3.75	4.17	5.00	5.90	6.85	7.85	8.90
2.5......	....	....	....	2.55	3.08	3.68	4.20	4.70	5.30	6.40	7.60	8.90	10.10	11.10
3	....	....	....	....	3.75	4.40	5.00	5.75	6.90	7.90	9.40	10.70	12.25	13.60
3.5......	....	....	....	....	....	5.20	5.90	6.75	7.60	9.40	11.10	12.70	14.40	15.90
4	....	....	....	....	....	....	6.85	7.90	8.90	10.70	12.70	14.50	16.40	18.20
4.5......	....	....	....	....	....	....	....	9.10	10.10	12.25	14.40	16.40	18.40	20.50
5	....	....	....	....	....	....	....	....	11.10	13.60	15.90	18.20	20.50	27.00
6	....	....	....	....	....	....	....	....	....	18.20	19.00	21.80	25.00	27.80
7	....	....	....	....	....	....	....	....	....	....	22.20	26.00	29.40	32.50
8	....	....	....	....	....	....	....	....	....	....	....	29.70	33.50	37.30
9	....	....	....	....	....	....	....	....	....	....	....	....	38.00	42.00
10	....	....	....	....	....	....	....	....	....	....	....	....	....	47.50
11	4.60	7.20	9.80	12.50	15.00	17.50	20.00	22.60	26.00	30.60	36.20	41.20	47.20	65.00
12	5.00	7.90	10.70	13.60	16.40	19.00	21.80	25.00	28.00	33.50	39.30	44.80	63.50	70.80
13	5.50	8.70	11.80	14.80	17.75	20.80	24.10	27.20	30.10	36.40	43.50	61.50	69.00	112.50
14	5.90	9.40	12.70	15.90	19.00	22.25	26.00	29.20	32.50	39.40	46.70	66.00	109.00	146.30
15	....	....	....	....	....	24.40	28.00	31.30	34.80	42.00	61.80	70.80	141.00	163.50
16	....	....	....	....	....	33.00	37.80	42.50	47.20	55.50	66.00	109.00	157.00	202.00
17	....	....	....	....	....	35.00	40.00	45.30	50.00	60.00	70.30	143.00	192.00	294.00
18	....	....	....	....	....	38.00	42.50	47.80	53.20	63.50	109.00	157.00	280.00	311.00

PAVING MATERIAL.

ROAD OIL.—The demand continues excellent, many municipalities used far more oil than expected owing to the continued dry season. Shipments are, in many cases, delayed, and it is difficult at times to secure oil with the promptness desired. The producers of oil, however, are anxiously cultivating the market for road oils and binders, consequently there is no prospect of a shortage in the supply.

Quotations are unchanged, 30% asphaltum oil being quoted at 4 cts. per gal. Texico macadam asphalt 90 to 95%, is 11 cts. per gal. f. o. b. New York or Philadelphia; A or X Tarvia in bbls. is 8½ to 9½ cts. per gal.; B grade in bbls. is 7 to 8 cts. per gal.

GRANITE BLOCK.—The greatest difficulty noted in the market for granite block has been the inability of contractors to secure prompt deliveries. It has been an especially favorable season for the laying of block and in consequence the quarries have, in many cases, been requested to hasten deliveries.

Prices continue unchanged as follows: Cape Ann granite block, delivered in New York City, in the old style block is $1.60 to $1.75 per sq. yd. Dressed block to lay with ¼-in. joint is $2 to $2.10 per sq. yd.

ASPHALTUM.—The volume of business taken by importers and jobbers of asphaltum has not been up to expectations. Quite a little material has been sold for waterproofing, but the paving business shows a considerable falling off. Prices are more or less nominal. California brands are selling at $28 per ton for the B grade and $25 for the D grade delivered in New York. At point of shipment prices are $17 and $14 respectively. Trinidad asphaltum is $27 for the best grade with $23 to $24 ruling for less desirable brands.

PAVING BLOCKS, WOOD.—The activity in this line is not quite as marked as it was earlier in the year, but there is still some very good business in sight and indications point to more activity later in the season.

Prices continue without change as follows: For long leaf yellow pine blocks having not less than 20 lbs. oil per cu. ft., $1.85 is quoted for 3-in. block; $2.05 for 3½-in. block and $2.25 for 4-in. block. All these prices are per sq. yd. f. o. b. New York.

VITRIFIED BRICK.—The demand is not especially active and prices although dull are steady at 55 to 70 cts. per sq. yd. at the point of shipment.

LUMBER.

Prices are steady, but there is no especial strength in the market. The amount of lumber used by consumers this season has not been up to expectations. This is chiefly because the largest consumers have been cutting down wherever possible. Municipal work has not been especially active. There has been a falling off in building construction and the low price of brick has had some influence on the market. In the case of the railroad buying, the situation has been rather confusing. It was thought a few years ago that if the railroads should stop purchasing even for a short time that practically all markets would become demoralized. This season the fallacy of the belief has been shown. The railroads have only bought in small lots, but general consumption has kept up well and there is no large surplus of lumber on the market. In some special lines, of course, it is expected that stocks will pile up, but on the other hand the cutting of lumber will be materially restricted during the next Winter and in a year the supply will be back to normal.

The freight rate question which has been uppermost in the minds of all concerned in the lumber industry for the last month is still unsettled. Many are so tired of the uncertainty that they would welcome almost any change, provided it made for a settlement. The interior markets are relatively more active than those on the coast and prices there are firmer.

NORTH CAROLINA PINE.—Quite a little more activity is noted this month than last month, and stocks are moving more freely.

Prices are without change as follows: For pieces 20 ft. long and less, in car lots New York, prices per thousand are as follows:

Size.		Size.	
2 × 4-in........	$18	2 × 10-in........	$21
2 × 6-in........	18	2 × 12-in........	22
2 × 8-in........	18		

Roofing boards, either ship lapped or tongue and grooved, are without change from last month, as follows:

Size.		Size.	
13/16 × 5½-in..	$17.50	13/16 × 9½-in..	$19.00
13/16 × 7½-in..	18.00	13/16 × 11½-in..	20.00

Random width, between any two, take the price of the widest.

In Boston 6-in. boards can be had at $17 to $17.50; 8-in. are obtainable at $18.50.

LONG LEAF YELLOW PINE.—There has been much more buying than usual, principally of long sticks in New York. All this material comes from the yard in New York City and adjacent points and in consequence any sudden increase in the demand is quickly felt. For yard deliveries and vicinity for material passed "merchantable" under the 1905 rules of the Association, prices are as follows:

Prices per Thousand in Yard, New York.

Size.	Length 20 ft. base.	21 to 25 ft.	26 to 30 ft.	31 to 35 ft.
8 in. wide and under by 8 in. thick and under.	$31	$32	$33	$34
10 in. wide by 10 in. thick and under.	33	34	35	36
12 in. wide by 12 in. thick and under.	36	37	38	39
14 in. wide by 14 in. thick and under.	43	44	46	46
16 in. wide by 16 in. thick and under.	45	46	47	48

For pieces longer than 35 ft. and less than 40 ft. add from $4 to $8 to base price.

SPRUCE.—The market is fairly steady. Canadian and Adirondack spruce can be had at $23.50 to $24.50 for 2 × 4 to 2 × 8-in.; $26.50 is quoted for 2 × 9-in., and 2 × 10-in. can be had at $26.

West Virginia spruce is quiet. For large lots, on track or delivered in the harbor New York, prices are as follows:

Size.	*Length, 10 to 20 ft.
2 to 4-in. thick by 4 to 8-in. wide	$27.00 to $28.00
2 to 2 4-in. thick by 10 to 12-in. wide	28.00 to 29.00
Sizes.	Length, 12 to 16 ft.
1 × 6 to 1 × 10..........	$28.00

*For each additional ft. in length, over 20 ft. add $1 per M.

In Boston, building orders are quoted at $22.50. For 2 × 3-in. to 2 × 7-in. $19 to $20 is asked, and 2 × 8-in., $20 to $20.50.

SPRUCE BOARDS.—For Adirondack spruce delivered in car loats, New York, prices are as follows: 1 × 4-in., $24; 1 × 5-in., $24.50; 1 × 6-in. and 1 × 7-in., $25; 1 × 8-in., $25.50; 1 × 9-in., $27; 1 × 10-in., $27.50. Culls, or No. 3, can be had at $20 to $20.50.

Boston prices for "Merchantable" boards 5-in. and wider are $19 to $19.50 for short lengths and $21.50 to $22 for 12 ft.

FLOORING.—All flooring is sold at its actual width, but as laid, on account of the tongue and groove, it does not measure the full width. The following prices are for yard delivery of long-leaf yellow pine, the actual measurement being 13/16 × 2¼-in., but counted as 1 × 3-in.; A, sap, $43 to $45; A, flat, $31.50 to $32.50; common, $25.50 to $26.

FACTORY FLOORING.—Prices of tongue and grooved factory flooring of North Carolina pine from 2 to 4 ins. thick and 5 to 9 ins. wide are $18 per M. f. o. b. Norfolk, Va. On cars New York City it can be had for $21 to $22.

MAPLE FLOORING. — Prices are unchanged. Clear stock with 2-in face is $48; No. 1 is $39.50 for 2-in.; $41.50 for 2¼-in., and $38 for 3¼-in. Factory flooring of maple ranges from $27 to $34.

OAK FLOORING.—The finest grades of red or white oak, quarter sawed flooring are $90 to $100 per M. in yard New York. Selected, quarter sawed, is $48 to $52, and very common oak is $30.

SHINGLES. — Prices continue without change. The following figures are quoted per M. for cypress shingles, New York City: No. 1 Hearts, 6 × 18-in., $7.50; Primes, 6 × 18-in., $6.50; No. 1 Hearts, 6 × 20-in., $10; Primes, 6 × 20-in., $8. Pine shingles, 2 × clear, 6 × 18-in., are $4 and 4X best are $5.25. White cedar can be had at $5 for 16-in. Maine shingles are $3.30 to $3.60 at mill.

HEMLOCK.—Quite a little hemlock is being sold at interior points, but in New York the demand is chiefly for other kinds of lumber. The base price of Pennsylvania continues unchanged at $21 and West Virginia at $20.50. Quotations named a month ago are without change as follows:

Prices Per Thousand f. o. b. cars New York.

Size.	Length 10 ft.	12 ft.	14 ft.	16 ft.
2 × 4-in.	$23.00	$21.00	$21.00	$23.00
2 × 6-in. to 2 × 10-in	21.00	21.00	21.00	18 to 20
3 × 4-in. to 12 × 12-in.	21.50	21.50	22.00	19 to 21
1 × 8-in.	.....	18.00	18.00	18.00
1 × 10-in. & 1 × 12-in.	.....	18.50	18.50	18.50

PILES.—There is a good inquiry for piles. For delivery in New York prices are without change as follows: 60 to 64 ft., $7; 65 to 69 ft., $8; 70 to 74 ft., $9.50; 75 to 79 ft., $11; 80 ft. and longer, $14.

In Norfolk the following prices are named for carload lots of yellow pine piles, in cts. per lin. ft.: 40 to 50 ft. long, 12-in. butt, 7 cts.; 14-in. butt, 9 cts.; 50 to 60 ft. long, 12-in. butt, 8 cts.; 14-in. butt, 9 cts.; 60 to 70 ft. long, 14-in. butt, 10 cts.

Creosoted piles, with 8-in. butt are 16 cts. per lin. ft., 14-in. butt, 26 cts., and 18-in. butt, 34 cts.

Oak piles with 14-in. butt, 40 ft. long are $7.50 to $8; 50-ft. long $11 to $11.50, and 60 ft. long are $14.50 to $15.

CROSS TIES.—The lack of buying by the railroads in this line is more marked than that in any other. Large quantities of ties were brought out last year, but so far purchasing agents of the railroads have limited their requirements about 75% of normal. In some cases the cut was even more drastic. It was expected that there would be a good many ties sold this year, because of the small amount of money used for maintenance for two or three years back, and this has been a keen disappointment. Prices f. o. b. New York are as follows:

	Cts. each
7 × 9-in.—8 ft. 6 ins.	.83 to 84
7 ×8-in.—8 ft. 6 ins.	.78 to 79
7 × 9-in.—8 ft.	.81 to 82
6 × 9-in.—8 ft.	.77 to 78
6 × 8-in.—8 ft.	.71 to 72

POLES.—See Line Construction.

LATH.—The demand is light with but little change in prices. Eastern spruce slab lath in New York are $3.75 to $3.90. In Boston, 1⅝-in. are $3.55 to $3.65 and 1½-in., $3.35 to $3.45.

SIDING.—Heart faced yellow pine siding is $32 to $34. Kiln dried sap siding can be had at $28 to $30.

GUM.—The outside prices of first quality is $1 higher. For carload lots, loaded on cars f. o. b. Ohio River points quotations are as follows: Red Gum is $33 to $35 for first quality boards and $21 to $23 for common ones.

Sap gum, firsts and seconds, is $21 to $23 for boards less than 12 ins. wide. Common sap gum is $16 to $18.

HICKORY.—The demand continues good and prices are unchanged and steady. For prime pieces, 1 to 2 ins. thick, wider than 4 ins., $50 to $66; 2¼ to 4 ins. thick, wider than 4 ins., $72 to $80; No. 1 common, 1 to 2 ins. thick, wider than 3 ins., $30 to $40; 2¼ to 4 ins. thick, wider than 3 ins., $45 to $55.

BLACK WALNUT.—Trade is fair. Prime stuff 1 to 2 ins. thick and over 6 ins. wide, is held at $95 to $115 per M.× No. 1 common, 1 to 2 ins. thick and over 4 ins. wide, commands $52 to $65.

MAHOGANY.—Prices of mahogany are unchanged. The best grade of Mexican is $150; second grade, $100 to $110. Cuban is sold at $175.

CHERRY.—The best grade of material, 1 to 2 ins. thick and wider than 6 ins., sells at $90 to $100; No. 1 common, 1 to 2 ins. thick and wider than 4 ins., is sold at $52 to $60.

BOX BOARDS.—White pine box boards are selling at $27.50 to $28.50 per thousand in carload lots. This includes the standard widths up to 10 ins. A common variety of box board sells at $24.50 to $25.

WHITE PINE.—The finest grades of white pine "Uppers" used as pattern stock, range from $100 to $110, from yard, for 1 to 2-in. thick. For carload lots of one grade concessions of about $5 a thousand would be made. Yard prices for 2 to 3-in. pieces are $105 to $115 and 4-in. pieces are held at $115 to $120 and higher. White pine classed "Selects" is from $5 to $10 per thousand cheaper.

MILL PRICES FOR CARLOAD LOTS AT OHIO RIVER POINTS.

YELLOW POPLAR, ROUGH.

Thickness.	Classification and Width Prime, 8-in. and over.	Common, 4-in. and over.
1-in.	$54 to $58	$35 to $36
1½—2-in.	55 to 58	35 to 38
3-in.	60 to 64	....
4-in.	62 to 67	....

Poplar squares, 3 × 3-in., 4 × 4-in., 5 × 5-in., 6 × 6-in., and 7 × 7-in., of good quality are $62 to $67; 8 × 8-in. and larger, when obtainable, are $72 to $77 per M.

CHESTNUT.

Thickness.	Classification and Width A 1 6-in. and wider.	Sound, Wormy, 6-in. and wider.
1-in.	$48 to $52	$17.50 to $19
1½-in.	45 to 47	19.50 to 21
2-in.	46 to 48	20.50 to 22

WHITE ASH.

Thickness.	Classification and Width A 1, 5-in. and over.	Common, 3-in. and over.
1-in.	$48 to $49	$30 to $32
1½—2-in.	53 to 56	31 to 33
2½—3-in.	65 to 70	40 to 45
4-in.	70 to 75	40 to 45

Cull boards are $20 to $22 and planks $23 to $25.

WHITE OAK.

Thickness.	Classification and Width A 1, 6-in. and over.	Common, 3-in. and over.
1-in.	$47 to $50	$30 to $32
1½—2-in.	52 to 53	34 to 35

Cull boards are $20; plank, from $21 to $22.

Quartered oak is from 50 to 66⅔% advance over plain.

FREIGHT RATES.—In the following list the carload freight rates on lumber, per 100 lbs., from Ohio River points to the principal cities are as follows: Baltimore, 16 cts.; Boston, 21 cts.; Buffalo, 10 cts.; Cleveland, 10 cts.; Detroit, 10 cts.; Indianapolis, 7 cts.; New York City, 19 cts.; Philadelphia, 17 cts.; Pittsburg, 10 cts.; Syracuse, 14 cts.; Toledo, 9 cts. From Norfolk, Va., to New York, 13 cts.; Boston, 15 cts. From Detroit, Mich., to New York, 19½ cts.; to Philadelphia, 17½ cts.

METALS.

COPPER.—The market has improved in many ways. Consumers are buying metal more freely. Prices have advanced slightly and it begins to look as if the talk of curtailment was not all myth, and it may be that some restriction of production will be begun during the present month. Most of all, sentiment has improved. Consumption is large, and abroad it is so large that little hopes are entertained for further improvement. In America all departments are fairly busy with the exception of the wire trade, which is very backward. On the other hand, prices of wire are lower in proportion to the finished material than any other form of copper and the city railway corporations have been purchasing amounts of fair sizes. It is estimated that during the month of July there was added to the surplus copper in the hands of producers, an unwieldly supply, at least 20,000,000 lbs.

This restriction of production is looked upon in the copper trade as the panacea for all ills, but it is not good economics. Had the market been allowed to take its course in 1908 and decline to levels where the high cost mines would have been unable to produce and sell at market prices there would have been a natural cutting down and consumption would undoubtedly have been simulated by the low prices. As it is, with the enormous surplus overhanging the market, consumers are afraid to buy for any extended deliveries fearing that there may be a break in the agreement to hold prices at the present figures. Moreover, such a course would have been entirely legal; it is well known that the leading copper owners are now fearful of making any hard and fast agreements because of the anti-trade laws. As it is there is a surplus sufficient for two or three months requirements if no new copper were produced and this may lend itself to all sorts of speculative excesses. One thing is certain; the longer production keeps up at its present rate so much longer will the day of recovery of the copper market be postponed.

SPELTER.—Producers of spelter complain bitterly of market conditions. Prices are so low that some properties are working at a loss. There has not been any large accumulation, for the spelter producers did not have the financial assistance that was so in evidence in the copper trade. A progressive campaign of education to extend the uses of spelter as a roofing material in this country would be beneficial to the trade. In Continental Europe it is extensively used, and the per capita consumption of spelter, or zinc, is much larger than in the United States, a direct contrast to the consumption of copper and tin. Prices are no firmer than a month ago, spelter selling at 5.05 cts. at St. Louis, or 5.20 cts. in New York, to arrive, but spot spelter in New York commands a premium and sells at 5.30 cts.

PIG TIN.—The market has been most interesting. Early in the month prices declined and tin sold around 32.50 cts. About July 20 mail advices from London informed a prominent seller here that no more tin would reach America before August 1. As stocks were small, this immediately sent prices upwards and for at least ten days there was a virtual corner in the market, premiums ranging from 1 ct. down to ¼ ct. Toward the end of the month it became evident that deliveries would be large; they amounted to 3,800 tons. In June there were

5,000 tons which makes an extremely strong statistical position. At the end of July the stocks in America were only 700 tons, and this largely concentrated in the hands of the leading consumer. Tin is now selling at 33.25 cts. per lb. in large lots.

ROOFING COPPER.—Business is active. Roofing copper is being bought freely not only by sheet metal workers but by other consumers of sheet copper such as the manufacturers of distillers' equipment and copper work for sugar refiners. The price is steady at 18 cts., which is a rather high figure considering the quotation for ingot metal.

LEAD.—Prices are steady and consumption is very good. The high price of linseed oil may have an adverse effect on the white lead trade, but in such an event the price of linseed oil will be reduced. Then, too, the present prices of lead are not especially low. The American Smelting & Refining Co. continue to quote shipment lead in 50-ton lots at 4.40 cts. Outside producers are able to get 4.40 cts. in the West, but are not disposing of anything, in the New York market on account of the 15-ct. freight rate.

Sheet lead	Per lb.
Large lots	6.25 cts.
Small lots	6.75 cts.
Lead Pipe.	Per lb.
Large lots	5.75
Small lots	6.40

MISCELLANEOUS METALS.—Small lots of metals and metal products can be obtained from jobbers' stores New York, at the following prices:

	Per lb.
Bismuth	$2.25
Brass tubes, iron pipe sizes:	
½-in.	.19
¾ to 3-in.	.18
3½-in.	.19
4-in.	.20
Brass, sheets	.14½
Brass, rods	.14½
Solder, ½ and ½ guaranteed	.22
Zinc sheets	.08½
Manganese bronze rods	.16
Manganese bronze in crucible form	.14
Monel metal, ingot	.16

OLD METALS.—Prices have again declined. Miscellaneous lots of scrap metal amounting to about a ton can be sold to dealers in New York at about the following prices:

	Cts. per lb.
Copper, heavy and crucible	10.25 to 10.50
Copper, heavy and wire	10.00 to 10.25
Copper, light and bottoms	9.00 to 9.25
Brass, heavy	6.75 to 7.00
Brass, light	5.50 to 5.75
Heavy machine composition	9.25 to 9.50
Clean brass turnings	6.75 to 7.00
Composition turnings	8.00 to 8.25
Lead, heavy	... to 3.50
Lead, tea	... to 3.25
Zinc, scrap	... to 3.75

OILS AND PAINTS.

PETROLEUM PRODUCTS. — The demand for oil, gasoline and lubricating products was, perhaps, never better. Crude oil and fuel oil is also being used in extremely large quantities. The supply, however, is large and increasing, particularly with the new developments in the Southwest and Mexico. Prices are unchanged from last month. The Standard Oil Co. quotes the price of crude oil in bbls. at the wells as follows: Pennsylvania, Second sand and Tiona, $1.30; Mercer black, 97 cts.; Corning, 77 cts.; New Castle, 94 cts.; Indiana, 77 cts.; Illinois is unchanged at 60 cts., Illinois heavy, below 30 gravity, is 52 cts.; Kansas heavy is 30 cts. per bbl. In the New York market petroleum from tank wagon is 1 ct. per gal. lower at 7½ cts.

Auto naphtha and stove gasoline is unchanged from last month at 14¾ cts.

Fuel oil is slightly cheaper. In tank cars on track at Seaboard points it is 93 cts. to $1.03 per bbl.

LINSEED OIL.—The market has been very much excited and prices have advanced 10 cts. a gal. Ordinarily the oil market in the summer months is a waiting one, and in many cases abrupt declines are noted in August and September. It may be that prices will decline this year for they are higher than before in a number of years; so high in fact that consumption is in danger of being restricted. The reason for the advance given is the high price of flaxseed, it being quoted at $2.33 to $2.44 per bushel in Duluth. Earlier in the year it was selling at $2.27 and then oil could be obtained at 82 to 83 cts. per gal. It is rumored that there are other reasons than the high price of flaxseed for the abnormally high price of oil. The present quotation is 90 to 91 cts. per gal. for City raw; 89 to 90 cts. for out of town raw, and 95 cts. for Calcutta oil.

PAINTS.—General consumers of paint have bought freely all the year, but manufacturers complain a lack of railroad orders. As yet the high price of linseed oil had little or no effect on consumption of paint, but should prices continue at the present high level there is little doubt that some work would be held off owing to the high price. There is one redeeming factor and that is the price of lead is comparatively cheap and although oil is higher than it has been for years, still the price of white lead and oil is without change. It is well to point out at this time that the price of ready mixed paints must show a marked advance, or else the manufacturers are using adulterants for oil has advanced fully 100% in the last year.

Prices of white lead in oil are unchanged. For lots of 500 lbs. or over, in 100, 250 and 500-lb. kegs, 7¼ cts. per lb. is quoted, in 25 and 50-lb. kegs, 7½ cts. per lb. Red lead and litharge in bbls., half bbls. and 100-lb. kegs is 7¼ cts. per lb.

Brown metallic is quoted at $16.50 to $22 per ton; red metallic, $14 to $18 per ton. American Venetian red in ton lots or larger is 75 cts. to $1.25 per 100 lbs., and English Venetian red, $1.15 to $1.60 per 100 lbs.

Graphite paints are not in as active demand as they were, this material being largely used by the railroads and they are cutting down their requisitions fully one-half. With the uncertain market for linseed oil the prices quoted are for immediate acceptance only. Some manufacturers are booking order at $1.20 to $1.30 per gal. Hydrex preservative paint is 75 cts. per gal. in bbl. lots delivered in New York.

Colors in oil are quoted at the following prices per lb.: Lamp black, 12 to 14 cts.; Chinese blue, 36 to 46 cts.; Prussian blue, 32 to 36 cts.; Van Dyke brown, 11 to 14 cts.; Chrome green, 12 to 16 cts.; Raw or Burnt Sienna, 12 to 15 cts.; Raw or Burnt Umber, 11 to 14 cts.

SPIRITS TURPENTINE.—Prices have advanced, possibly in sympathy with the higher quotation of linseed oil, and turpentine is now higher than it has been in a year. In New York it is quoted at 72 to 73 cts. per gal. in 5 bbl. lots. In Charleston it is 68½ cts. and in Savannah, 68¼ cts. In Wilmington, Del., it is quoted at 67½ cts.

LINE CONSTRUCTION.

TELEGRAPH WIRE. — Prices continue without change as follows:

For lots of fair size, the wire measured, in Birmingham wire gage, the prices in cts. per lb. are as follows: "Extra Best Best." Nos. 6 to 9, 4¾ cts.; Nos. 10 and 11, 4½ cts.; No. 12, 4⅝ cts.; No. 14, 5⅛ cts. "Best Best." Nos. 6 to 9, 3¼ cts.; Nos. 10 and 11, 3⅜ cts.; No. 12, 3½ cts.; No. 14, 4 cts. Actual freight is allowed from Trenton, N. J., where it does not exceed 25 cts. per 100 lbs.

COPPER WIRE.—The absence of buying by the railroads has been offset by increased takings from electric railways, large power companies, and perhaps more than any other small consumers. Numerous plant extensions are being made, particularly in the West and in the aggregate a great deal of copper wire is being sold. Telephone wire is in excellent demand. The base price is slightly higher, No. 8 wire now selling at 14 cts.

ALUMINUM.—Trade continues quiet and prices are unchanged at 31 cts. base.

INSULATORS.—Prices are without change Glass insulators in lots of more than 1,000 and less than 10,000 are sold at the following prices per 1,000: Double petticoat, 20 oz., $33; Western Union, $30.25; No. 2 cable, $53.90; No. 4 cable, $210; Muncie type, 7-in., $236.50; No. 3 triple petticoat, 4½-in., $90.75.

POLES.—The demand for poles is considerably better, especially in the West, and numerous poles have recently been sold. The R. E. Dowie Pole Co., 432 New York Block, Seattle, Wash., has recently sold to the Postal Telegraph Co. several thousand 25 to 40-ft. poles for a line from Seattle to Spokane. The same company is also furnishing 60-ft. Winter cut poles to the Columbia Power & Light Co. for a high tension transmission line from Pasco to Walla Walla, Wash. This company quotes the price of poles f. o. b., loading point as follows:

Length in ft.	Diameter at top. 8-in.	9-in.
30	$2.70	....
35	3.15	3.50
40	3.60	4.00
45	...	4.50
50	...	5.00
55	...	5.50
60	...	7.20
65	...	9.75
70	...	10.50
75	...	11.25
80	...	12.00

The Backus-Judd Lumber & Cooperage Co., Minneapolis, Minn., quoted white cedar poles f. o. b. Rex, Mich., freight rate to Chicago 12 cts., as follows:

Length in feet.	Price each — Diameter at top — 5-in.	6-in.	7-in.
25	$0.65	$1.10	$1.50
30	...	1.60	3.75
35	...	4.00	5.00
40	...	5.25	7.00
45	...	7.25	9.50
50	...	10.00	11.00

Chestnut poles, f. o. b. Mechanicsville, N. Y., are quoted by T. C. Luther of that place as follows:

Length in feet.	Price each — Diameter at top — 5-in.	6-in.	7-in.
25	$1.50	$2.00	$2.75
30	2.50	2.75	3.25
35	2.75	3.25	4.00
40	3.25	4.00	5.50
45	4.00	5.50	7.50
50	5.50	7.50	9.50

FIR CROSS ARMS.—Prices are unchanged as follows:

Length Size, 3¼ × 4¼-in.	Price per arm in cts. Pacific Coast.	Chicago.	New York.
3 ft., 2-pin	8	13½	15½
4 ft., 2-pin	11	18½	21
5 ft., 4-pin	16	26½	28½
6 ft., 4 and 6-pin	20½	31½	36
8 ft., 6 and 8-pin	28	43	48½
10 ft., 8, 10 and 12-pin	37	55½	67½

CHEMICALS.

Prices of 40° vitric acid and sulphur flowers are easier.

The following quotations are named for delivery in New York City for lots of fair size:

	Cts. per lb.
Nitric Acid, 30°	3.87½ to 4.25
Nitric Acid, 40°	4.12½ to 4.87½
Sulphuric, 60°	0.90 to 1.00
Sulphuric, 66°	1.00 to 1.25
Sal Ammoniac, lump	9.25 to 9.75
Sal Ammoniac, granulated	5.87½ to 6.00
Sal Ammoniac, gray	6.00 to 6.25
Sulphur, roll	1.85 to 2.15
Sulphur, flour	2.00 to 2.40
Sulphur, flowers	2.20 to 2.60
	Per gallon.
Alcohol, grain, U. S. proof	$2.50 to $2.52
Alcohol, denatured, 5-bbl. lots	.41 to .42
Alcohol, denatured, ½ bbls	.46 to .47
Alcohol, wood, 95 to 97	.50 to .53
Alcohol, wood, purified	.80 to ..

MISCELLANEOUS.

PAPER.—Prices are without change from last month, as follows:

Tarred Paper:	Per roll of 108 sq. ft.
Standard 2-ply, 40 lbs.	$0.45
Extra heavy, 2-ply, 45 lbs.	.55
Standard 3-ply, 60 lbs.	.65
Extra heavy, 3-ply 70 lbs.	.75
Rosin Sized Sheathing:	**Per roll of 500 sq. ft.**
Light, 35 lbs	$0.38
Medium, 30 lbs.	.45
Heavy, 40 lbs	.60

PITCH.—The best grades of pitch are sold at $14 per net ton in carload lots. Small quantities are held at $16 per net ton.

ROOFING CEMENT.—Prices are unchanged at $25 per ton for Texaco.

OAKUM.—There is a fair inquiry and prices show little change. The best grade is off ¼ ct., selling at 6¼. Other prices are as follows: U. S. Navy, 5¾ cts.; common and plumbers' oakum, 2¼ cts. per lb.

ROPE.—The market is unsettled. The best grades of pure Manila are about ½-ct. higher, but other kinds of rope are cheaper.

The highest grade of pure Manila is 9 to 9¼ cts.; second grade, 8½ to 9 cts.; competitive grades, 8 to 8½ cts. per lb. Pure Sisal is 7¼ to 7¼ cts. for the best grade, while less desirable grades are obtainable at 6¼ to 7 cts. Jute rope in commercial sizes is 5¼ to 6 cts. per lb.

ROOFING SLATE.—Prices are without change. The following quotations are per "square" or one hundred sq. ft. of roof surface in carload lots f. o. b. quarry stations of the size in most general use:

	Per 100 sq. ft.
Vermont, sea green	$4.00 to $4.50
Pennsylvania, Bangor Ribbon	4.00 to 4.50
Maine, Brownsville No. 1	6.00 to 7.75
Maine, Brownsville, No. 2	5.60 to 6.00
Red	10.50 to 12.25
Unfading green	4.50 to 5.00
Genuine Bangor	5.00 to 6.50

WATERPROOFING.—The prices for carload lots, f. o. b. cars New York, are as follows: Hydrex waterproofing felt, $1.25 per 100 sq. ft.; Hydrex compound "A," 26 cts. per gal.; Hydrex compound "B," 18 cts. per gal.

Texaco waterproofing cement is $30 per ton, in car lots, f. o. b. cars New York or Philadelphia.

Asphaltum, for waterproofing, is sold at $25 to $27 per net ton.

Glidden's graphite acid proof coating is sold at $1.25 per gal. in bbl., and ½ bbls., and $1.40 per gal. in 5 gal. cans. These prices are f. o. b. Cleveland or for delivery from warehouse New York, Chicago, St. Louis, Boston or Atlanta.

EXPLOSIVES.—Dynamite of the kind usually used by contractors, is approximately 11 to 13 cts. per lb. f. o. b. factory in ton lots. Blasting powder, classified as "soda" grade, is sold at $1.20 to $1.40 per keg or 25 lbs. in lots of 10,000 lbs. The following prices prevail on Trojan in carload lots, minimum 24,000 lbs. f. o. b. Pacific Coast points: No. 1, 13¼ cts.; No. 2, 10½ cts.; No. 3, 10 cts. They have a disruptive force equivalent to 60%, 40% and 30% of nitro-glycerine.

Exploders, per hundred, are sold at the following prices: 4 ft., $3.60; 6 ft., $4.10; 8 ft., $4.60; 10 ft., $5.10; 12 ft., $5.60; 16 ft. $6.60; 20 ft., $7.50; 24 ft., $9.40; 30 ft, $12; 36 ft, $14.60.

Caps in lots of 10,000 are $7 to $8 per thousand.

Blasting machines for 10 holes are $12; 25 holes, $20; 50 holes, $40; 100 holes, $60.

The Isthmian Canal Commission purchased, or will purchase in 1910, about 6,125,000 lbs. of 45% dynamite at a cost of 10.60 cts.; 3,957,100 lbs., of 50% at 11.60 cts. The estimated requirements for 1911 are 8,540,000 lbs. of 45% at 11.7 cts. and 5,187,000 lbs. of 50% at 12.7 cts.

LITHERAGE LIMITS.—The free delivery or "Litherage Limits" in New York City are as follows: In Manhattan, from a point opposite the Fort Lee ferry south along the Hudson River around the Battery and north along the East and Harlem Rivers to the Jerome Ave. Bridge at 155th St. In New Jersey, south from Fort Lee ferry to Bayonne City; points on the north and east shore of Staten Island between Bridge Crook (Arlington) and Clifton, both inclusive, and including Elm Park, Eristina and Shooters Island. In Brooklyn, from 69th St., Bay Ridge, north to Pot Cove, Astoria, Long Island City.

ASBESTOS.—The demand is fair and prices continue without change. Asbestos building felt and sheathing in less than ton lots is 3½ cts. per lb. for the light, weighing from 6 to 30 lbs. per 100 sq. ft.; 4 cts. per lb. is charged for the heavy, weighing from 45 to 56 lbs. per 100 sq. ft.

Millboard is made in standard sheets, 40 × 40 ins., and 42 × 44 ins. It varies in thickness from 1-32 to ½-in. and in weight from 2 to 27 lbs. per sheet. The net price in 100 lbs. lots is 5 cts. per lb.

Transite, asbestos wood, used for fireproofing, ventilators and smoke jacks, comes in standard sheets, 36 × 48 ins., 42 × 48 ins., and 42 × 96 ins. The prices f. o. b. factory, Nassau, N. H., are as follows:

Thickness.	Weight.	Price
⅛-inch	1 lb.	$0.08
3/16-inch	1½ lbs	.12
¼-inch	2 lbs.	.16
5/16-inch	2½ lbs.	.20
⅜-inch	3 lbs.	.28
7/16-inch	3½ lbs.	.28
½-inch	4 lbs.	.32
9/16-inch	4½ lbs.	.36
⅝-inch	5 lbs.	.40
¾-inch	6 lbs.	.44
⅞-inch	7 lbs.	.48
1 inch	8 lbs.	.52
1¼-inches	10 lbs.	.56
1½ inches	12 lbs.	.64
1¾ inches	16 lbs.	.72
2 inches	16 lbs.	.80

PINE TAR.—A further advance of 25 cts. per bbl. is noted following one of like amount a month ago. Kiln is quoted at $6.50 to $6.75 and retort at $6.25 to $6.50. These prices are for bbls. of 480 lbs.

RUBBER.—Prices are lower and the demand is not at all active. Up-River Para can now be had at $2.10 to $2.15 per lb., a decline of about 30 cts. compared with last month. Guayule is selling at 90 cts. to $1, and Cancho ball at $1.45. The India Rubber imported into the United States in June amounted to 5,501,392 lbs., compared with 8,248,841 lbs. in the corresponding month last year. The total importation during the fiscal year, Dept. Commerce and Labor, ending June 30, 1910, amounted to 101,044,681 lbs. compared with 88,359,895 lbs. in 1909 and 62,233,160 lbs. in 1908.

INDUSTRIAL NOTES.

THE LUITWEILER PUMPING ENGINE CO., of Rochester, N. Y., has opened a branch office at 1653 Monadnock Block, Chicago, in charge of Mr. E. D. Williams.

THE NEW YORK SHIPBUILDING CO., Camden, N. J., announces that Mr. Edwin B. Sadtler has been appointed agent in charge of its New York office at No. 12 Broadway.

J. S. MUNDY, 39 Cortlandt St., New York City, has recently shipped a complete pile-driving outfit, including engine, boiler, Mundy hoisting drums, to a contractor in China. This will be used in Chinese railway work.

WM. G. HARTRANFT CEMENT CO., Real Estate Trust Bldg., Philadelphia, has been appointed General Sales Agent of the Penn-Allen Cement Co., Bath, Pa. This plant was started July 11 and has a capacity of approximately 75,000 bbls. monthly.

AT THE ANNUAL MEETING of the G. & W. Mfg. Co., 26 Cortlandt St., New York, the resignation of Mr. F. H. Cook, President and Treasurer of the company, was accepted, and Mr. Frederick B. Cook elected President and Treasurer. Mr. F. H. Cook remains a director of the company.

THE PIG IRON PRODUCTION in the United States during the first half of 1910 has recently been compiled by the American Iron & Steel Association. The total output during this period was 15,012,293 gross tons. This was not only a new high record for production during the first half of the year, but was a new record for production during any half-year period. The production in the corresponding six months last year was 11,022,346 tons; in 1908, 6,918,004 tons, and in 1907, the previous high record year, it was 13,478,044 tons. The total number of furnaces in blast on June 30, 1910, was 293 against 338 on Dec. 31, 1909, and 258 on June 30, 1910. The number of furnaces idle on June 30, this year, was 180 compared with 205 on June 30, 1909. During the first six months of 1910 the number of furnaces actually in blast during a part or the whole time was 374. As there were 473 furnaces recognized by the Association, it will be seen that 99 of them were of such an inferior type that they were not put in blast at all. It is significant to note in his connection that had the blast furnace capacity of this country been no larger at the beginning of 1910 than it was at the beginning of 1907 the demand would have exceeded the supply.

THE TOTAL TONNAGE of steamers owned by the principal maritime countries is figured as according to Lloyd's register, 32,628,000 tons, in 1900 it was only 20,260,000 tons. In this compilation Great Britain easily led the rest of the world with the tonnage of over 18,000,000 tons, with Germany slightly less than 4,000,000 and the United States 1,642,000. It is worthy of note, however, that the United States now occupies third instead of fourth place, having surpassed France. It is also stated that the tonnage of the vessels engaged in traffic on the Great Lakes in the United States was not included. Figures have also been compiled showing the classifications of the different steamers having capacity in excess of 2,000 tons. The total number was 6,956, of which 4,408 had a tonnage between 2,000 and 4,000 tons; 2,115 had a carrying capacity between 4,000 and 7,000 tons, while 298 were rated between 7,000 and 10,000 tons and the number of vessels having tonnage of over 10,000 was only 135. From the same set of figures it appears that the total tonnage of steam and sailing vessels, including all vessels over 100 tons, was 41,915,000 tons. In 1886 the total tonnage of the world's steam and sailing vessels was 21,508,000. In 1900 it amounted to 29,000,043.

A STEEL CASTING of unusual size and shape has recently been cast by the Prime Steel Co., Milwaukee, Wis. This casting, a hopper for a blast furnace, is 12 ft. 6 ins. in diameter, 9 ft. 6 ins. deep, and has a thickness of 1½ ins. below the flange, weighing altogether eight tons. No pattern was used, it being made in a swept mold.

JOSEPH T. RYERSON & SON, Chicago, have removed their New York office to 30 Church St. In connection with this office the firm has a show room and warehouse in Jersey City in close proximity to the Hudson and Manhattan tunnel. Customers can go from the office to the warehouse with ease and on account of the greater space available in Jersey City there is a much better display afforded.

THE CYCLONE DRILL CO., Orrville, Ohio, announces that it has recently sold nine blast hole drills to the John B. Carter Co. These will be used on various contracts in Maryland and Pennsylvania. Four prospecting machines have been sold to Jacobs & Davies for foundation testing near Chattanooga, Tenn. Blast hole drills have also been sold to the following concerns: Empire Lime Stone Co., Buffalo, N. Y.; Shore Lime Stone Co., Monroe, Mich.; Barr-Clay Co., Streator, Ill.; France Slag Co., Toledo, Ohio.

THE WORLD'S PRODUCTION and consumption of non-ferrous metals including lead, copper, spelter, tin, aluminum, nickel and quicksilver, has been compiled by the Metall Gesellschaft, the Metallurgische Gesellschaft, and the Berg und Metallbank, of Frankfort-on-Main. The world's production for the past four years, as stated by that authority, is given as follows in metric tons:

	1906.	1907.	1908.	1909.
Lead	973,100	986,000	1,061,200	1,081,900
Copper ...	712,900	703,000	744,600	844,100
Spelter ...	702,000	738,400	722,100	783,200
Tin	98,800	97,700	107,500	108,300
Aluminum.	14,500	19,800	18,600	24,200
Nickel	14,300	14,100	12,800	16,100
Quicksilver.	3,700	3,200	3,300	3,200

The percentage of increase and decrease for the four principal metals in the group is shown in the table below:

	1907 over 1906.	1908 over 1907.	1909 over 1908.	Aver. yearly increase in the last 10 years.
Lead	+1.3	+ 7.6	+ 2.0	3.0
Copper	—1.4	+ 5.9	+13.4	6.0
Spelter	+5.2	— 2.2	+ 8.5	4.8
Tin	—1.1	+10.0	+ 0.7	4.0

The consumption of the above mentioned metals in Europe and the United States was as follows, the figures representing metric tons:

	1906.	1907.	1908.	1909.
Lead:				
Europe......	587,400	603,400	701,100	684,800
United States	351,400	295,300	293,000	365,000
Copper:				
Europe......	404,800	406,800	477,700	451,800
United States	303,600	225,500	208,800	318,900
Spelter:				
Europe......	494,200	503,300	532,000	540,200
United States	200,000	205,000	193,000	260,000
Tin:				
Europe......	57,700	57,300	59,100	58,500
United States	43,700	39,700	32,800	42,800

The statistics of consumption are commented on by "The Ironmonger," London, as follows: "These figures show the remarkable difference between the development of metal consumption in Europe and in the United States, though in estimating tonnage an element of uncertainty is introduced by the fact that the lead and spelter stocks are all in private hands, and that as far as Europe is concerned it has been impossible to take into account any alterations in such stocks, while in the United States the estimates of stocks must not be taken without reserve. The figures above, however, indicate the broad lines of development."

Readers' Wants

If you are in the market for material, equipment or supplies, and fail to find it in our advertising pages, send us full particulars, and we will gladly put you in touch with the right parties.

The Kress Construction Co., Stuttgart, Ark., having secured an important sewer contract, wishes catalogs and quotations from makers of the following: Cast-iron sewer pope, 14-in.; boilers, 50 HP.; steam engine, 35 HP.; valves, specials, etc.; brick, cement, trenching machinery, concrete forms.

TRADE PUBLICATIONS.

STEAM TRACKLAYING MACHINE.—Roberts Brothers, 125 La Salle St., Chicago. Paper; 6¾ x 9 ins.; pp. 22; illustrated.

In the Roberts machine, the rails and ties are delivered ahead of the train by live rollers, driven from an engine on the head car. The equipment and operation are described, and several illustrations show the machines at work.

STEEL REINFORCEMENT FOR CONCRETE.—William B. Hough Co., Chicago, Ill. Paper; 6 x 9 ins.; pp. 30; illustrated.

The reinforcement includes cold-twisted bars of open-hearth steel, girder reinforcing frames, built up of these bars and spiral reinforcement for columns. A combination of hollow tile and concrete joist construction is shown, as well as a steel spacer for supporting reinforcement bars and holding them in position.

VANADIUM FOR STEEL AND IRON.—The American Vanadium Co., Frick Building, Pittsburg, Pa.

A large selection of the American Vanadium Co.'s literature has come to hand. Numerous addresses and papers on vanadium are included in it, among them papers on vanadium in railway steels, estimation of vanadium (qualitative and quantitative methods), alloy steels for motor-car construction, vanadium in automobile manufacture, case-hardening vanadium steel, static and dynamic properties, etc. There is also a booklet giving tests and figures on spring steel, one devoted to the use of vanadium in malleable cast-iron, a full treatise on classification and use and treatment of vanadium steels (prepared in English, French and German), and other matter. The above does not suggest all the uses in which vanadium has been found of value to iron metallurgy, and it will be new to most foundrymen that, as stated in one of the books, locomotive cylinders cast with a small vanadium addition showed remarkably low wear in the bore. All who are interested in steel and iron for hard service will be interested in what is told of vanadium.

For other Proposal Advertisements see pages 51, 52, 53, 54, 56 of Advertisements and Construction News page 64.

OFFICE, COMMISSIONERS, District of Columbia, Washington, July 30, 1910.—Sealed proposals will be received at this office until 2 o'clock P. M., August 15, 1910, for grading and improving suburban streets and avenues in the District of Columbia. Forms of proposals, specifications, and necessary information may be obtained from Chief Clerk, Engineer Department, Room 427, District Building, Washington, D. C. CUNO H. RUDOLPH, JOHN A. JOHNSTON, WILLIAM V. JUDSON, Commissioners, D. C.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., July 30, 1910.—Sealed proposals will be received in this office until 3 o'clock P. M. on the 14th day of September, 1910, and then opened, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. Post Office at Webster, Mass., in accordance with drawings and specification, copies of which may be obtained from the Custodian of site at Webster, Mass., or at this office at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

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CORNELL GRADUATE; civil engineer (24); eight months' experience at detailing reinforced concrete buildings, desires outside position on concrete work. Address, Engineering News, New York. 5-1t

Miscellaneous Wants

WANTED

Copies of June and July, 1874, Engineering News, or will buy Volume 1 complete. State price.

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